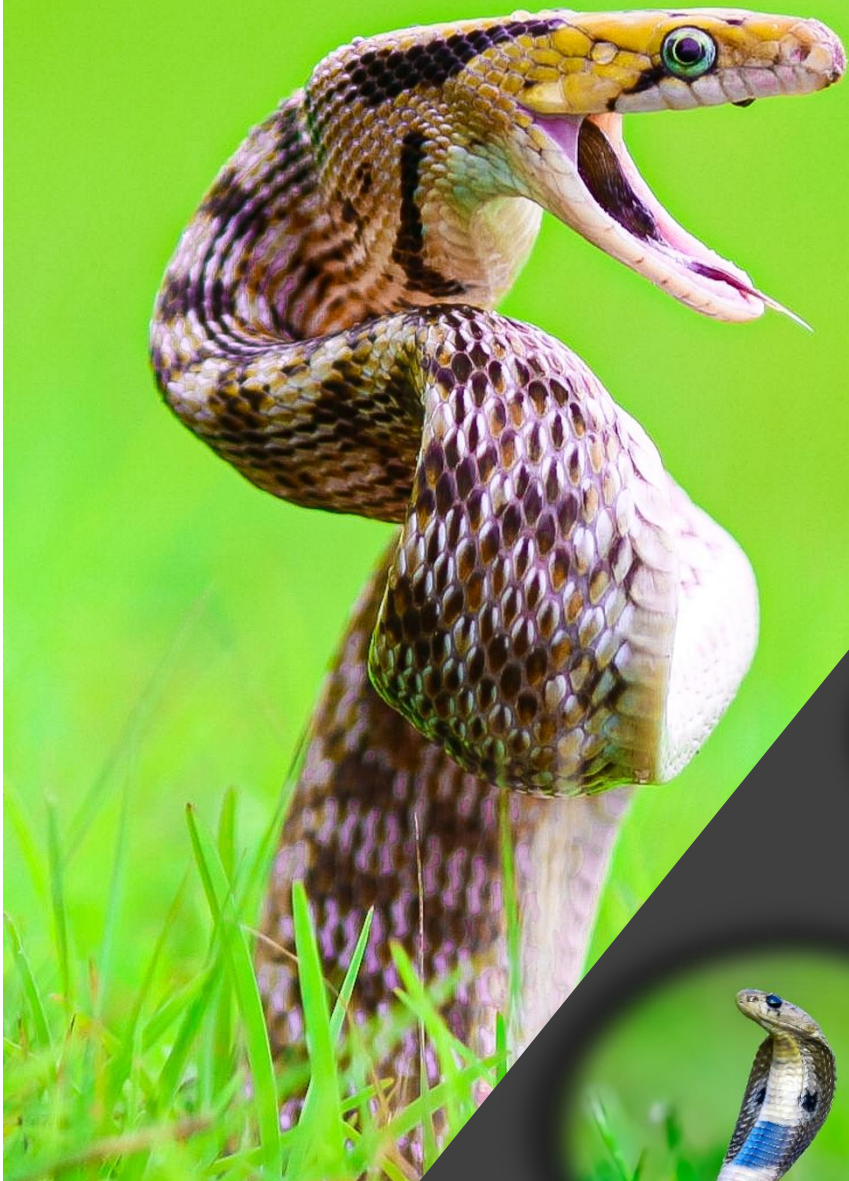
SNAKES OF MAHARASHTRA

Rahul Shinde



सत्यमेव जयते

PCCF WILDLIFE WEST, MUMBAI

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पश्चिम, मुंबई

दिनांक 07.09.2020

साप म्हणजे साक्षात मृत्यू आणि तो दिसला की मारला जातो आणि त्यासंदर्भातील सर्व चुकीच्या गोष्टी त्या निष्पाप जिवाविषयी असणाऱ्या भीतीचे मूळ कारण. यातूनच असंख्य गैरसमज निर्माण झाले, त्याला खतपाणी चित्रपट आणि दूरदर्शन मालिका यांनी घालुन त्या भीतीचा पाया भक्कम केला. इंग्रजांनी भारताची ओळख साप आणि गारुड्यांचा देश असाच केला होता. आणि त्यात गैर कांहीच नाही. इतका लहान भूभाग असलेल्या या देशात 325 विविध प्रकारचे साप सापडतातच ना! यातील खूपच कमी साप हे विषारी आहेत, ज्यांच्या दंशाने मानव दगावू शकतो. पण दुर्दैवाने भारतात प्रतिवर्षी 50 हजार लोक सर्पदंश होऊन दगावतात ही सत्यस्थिती आहे. आणि सापांविषयी असणारे गैरसमज जोपर्यंत कमी होत नाहीत तोपर्यंत अश्या घटना घडत राहणार.

आज साप दिसला की सर्पमित्राना बोलाविले जाते. सर्प संवर्धनाच्या बाबतीत ही एक मोठी उत्क्रांती म्हणायला हरकत नाही. या बदलाची सुरुवात ही महाराष्ट्रात झाली ही किती अभिमानाची गोष्ट. सर्पमित्र नुसतेच साप पकडत नाहीत तर ते यासंदर्भात जनजागृती सुद्धा करत असतात. पण त्याचबरोबर त्यांच्यावर ह्या कामांचा गैरफायदा न घेताना समाजाला मदत करणे व सापांचा जीव वाचविणे ही मोठी जबाबदारी पण आहे. सोलापूर येथील सर्प अभ्यासक राहुल शिंदे यांनी लिहिलेले 'महाराष्ट्रातील साप' हे पुस्तक या याचेच एक प्रातिनिधिक उदाहरण आहे. अगदी सोप्या आणि सर्वसामान्य लोकांना समजेल अश्या भाषेत लिहिलेली पुस्तिका नक्कीच सर्पसंवर्धनाच्या दिशेने टाकले गेलेले एक योग्य पाऊल आहे.

या पुस्तकामध्ये त्यांच्या शारीरिक रचनेपासून, विष, आणि इतर महत्त्वाच्या गोष्टींचा समावेश आहेच पण त्यांच्याविषयी असणारे गैरसमज आणि त्यांचा शास्त्रीय उकल याचा पण समावेश आहे. अत्यंत महत्त्वाचे म्हणजे सर्पदंश होऊ नये म्हणून घ्यायची काळजी व दुर्दैवाने सर्पदंश झाल्यावर योग्य ते मार्गदर्शन सुद्धा यामध्ये दिलेले आहे.

महाराष्ट्रात आढळणाऱ्या सापांच्याबद्धल चांगली आणि शास्त्रीय माहितीसुद्धा या पुस्तिकेत दिलेली आहे. साप आणि कायदे, सर्पमित्रांनी काय करायला हवे यासंदर्भातही माहिती दिलेली आहे. ह्याद्वारे माझीही सर्व सर्पमित्रांना विनंती राहील की वन विभागाला आपण विश्वासाने मदत करा, कोणतेही गैरकृत्य करु नका. सापांशी खेळ, अवाजवी धाडसी प्रयोग, सवंग लोकप्रियता ह्यांसाठी व्हिडीओ बनवू नका जे तुमच्यासाठी जीवघेणे तर आहेच पण कायद्याने तो गंभीर गुन्हा देखील आहे.

ई-बुकच्या स्वरूपात ही पुस्तिका आहे. रंगसंगती थोडी भडक वाटते पण पुढच्या आवृत्तीत यावर विचार करायला जरुर करायला हवा.

साप या विषयावर खूप पुस्तिका आहेत आणि सर्व पुस्तकात या स्वरूपातील माहिती उपलब्ध असते. पण ईबुक स्वरूपात, योग्य ती शास्त्रिय माहिती समजणाऱ्या भाषेत मांडून एका सर्पमित्राने केलेला हा प्रयत्न नक्कीच वाखाणण्याजोगा आहे.

सुनील लिमये 07/09/20

अपर प्रधान मुख्य वनसंरक्षक (वन्यजीव) पश्चिम, मुंबई यांचे कार्यालय
जुनी एमएचबी कॉलनी जवळ, एलटी रोड, बोरिवली (पश्चिम), मुंबई - ४०००९१ | दुरध्वनी क्र. : +९१ ९४२२३ ५१२३४ | ई-मेल : apccfwlmumbai@mahaforest.gov.in

About the author

Rahul Shinde hails from the Solapur district in Maharashtra. Since a very young age, the conservation of animals, especially snakes, has formed the basis of his beliefs and substantially influenced his life. He is one of Maharashtra's best up-and-coming taxonomists, and his record speaks for itself. In 2020, to acclaim, he published "Snakes of Maharashtra," a Marathi handbook to the numerous snakes in Maharashtra. In fact, this digital release was so popular that he is preparing to produce an updated version in English to appeal to a broader audience across India as a result of the fervent public demand. He is a well-known expert on scaleless cobras. In addition to publishing an article in a reputable scientific publication based on his studies on scale-less cobras, he has spent years doing taxonomical examinations. Additionally, he plays a significant role in raising public awareness of snakes and wildlife in general. Throughout his career, he has conducted more than 1500 lectures. In addition, he has received several honors and recognitions throughout the years in the field of taxonomy, including the distinguished "Nilimkumar Khaire Conservation Award." He is also an authority in snake venom, and his knowledge has prevented the deaths of more than 3000 snake bite victims.

Mr. Devdutt Shelke
(Ophiologist & Taxonomist)

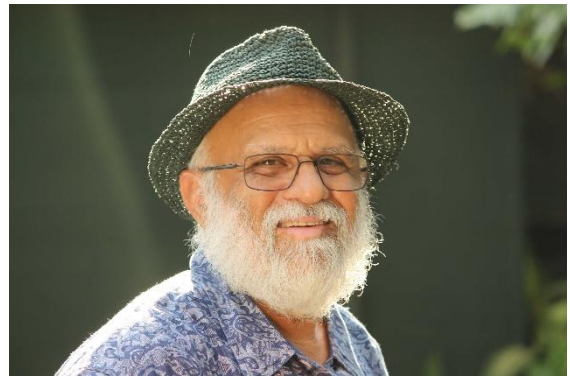
Congratulations to Rahul for having compiled this ebook Snakes of Maharashtra that is so useful and necessary. He has covered all the important topics in a simple and easy to understand manner.

Rahul's efforts in snake conservation at the grassroot level in Solapur district is very noteworthy.

The most commendable feature is that this ebook can reach every handset in all parts of Maharashtra, free of cost.

Maharashtra has a high death rate due to snake bites. The main reasons are ignorance, resorting to tantriks, delay in treatment. This ebook helps to educate and create awareness in every corner of Maharashtra.

I wish Rahul all the very best. He should continue his dedication and service towards snakes.



Neelimkumar Khaire (Herpetologist)

सह्याद्री देवराई

जगात सर्वाधिक लोक सर्पदंशाने भारतात मृत्युमुखी पडतात. याचे मुख्य कारण म्हणजे सापांबद्दल समाजात पसरलेल्या अंधश्रद्धा, अनिष्ट चालीरीती, आणि अज्ञान होय. आज भारत देश प्रगतीच्या मार्गावर असला तरी आजही सापांबद्दल हवं असलेलं ज्ञान सर्वांपर्यंत पोहोचलेलं दिसत नाही. आजच्या या मोबाईल युगात इंटरनेटमुळे सर्वप्रकारची माहिती घर बसल्या घेता येत असली तरी परिपूर्ण आणि सखोल माहिती मिळणे अवघडच. हे पाहता सोलापूरचे सर्प अभ्यासक राहुल शिंदे यांनी केलेला हा प्रयोग समाजासाठी अतिशय फायदेशीर ठरणार आहे. या आधी त्यांनी मराठी भाषेत लिहिलेल्या महाराष्ट्रातील साप हे ईबुक अतिशय उपयोगी ठरलं आहे. त्याच प्रकारे हि इंग्रजी आवृत्तीही अतिशय फायदेशीर ठरेल यात काय वाद नाही. या पुस्तकातील सापांची छायाचित्रे आणि सुटसुटीत माहिती सामान्य व्यक्ती ज्याला इंग्रजी वाचता येत त्यालाही कळेल अश्या सोप्या भाषेत आहे. या पुस्तकाचे आणखी एक वैशिट्य म्हणजे हे सर्वांसाठी मोफत उपलब्ध करून दिले आहे ही फार मोठी कौतुकाची बाब आहे. राहुल शिंदे यांच्या पुढील कार्यास हार्दिक शुभेच्छा व आशीर्वाद.

सयाजी शिंदे
(अभिनेता व सह्याद्री देवराई संस्थापक)

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About this Book

After the great success of the E-book Maharashtratil Saap (Marathi version) it raised a great demand of its English version among Snake Lovers. The book was made free of cost for everyone. Looking into this, the present Principal Chief Conservator of Forest Mr. Sunil Limaye Sir Inspired me & admired my book 'Maharashtratil Saap' by sending me a letter of appreciation on the letter pad of Maharashtra Forest Department. This was a great boost to my work. Maharashtra is the home to more than 65 Species of snakes. Among those this book covers about 55 species of Snakes found in maharashtra. This book is photographic field guide to the snakes you might find herping the suburbs and jungles of Maharashtra. It deals with the topics like the nomenclature of snakes in English, Marathi & Scientific, their identification, breeding behaviour, food, habitat, Characteristics, How to keep away snakes & how to prevent Snake bites, SOP for snake friends, Do's and Don'ts, First Aids, superstitions and their abolition are explained in a simple language. Non-venomous snakes are highlighted by green, semi-venomous snakes by yellow and Venomous snakes by red smiley.

This book is important for common man as well as doctors, farmers, snake lovers & rescuers. It is also an important choice for the forest department as it carries information about the Snake and its respective Schedule of WLPA 1972. The book is an extract of 17 years of my experience in this field as wildlife/Snake conservator. The information in this book is best to my knowledge although it may vary in other books. Due to superstitions a phobia is developed among people. This book is an attempt to overcome this phobia and superstitions. Many Snakes are on the verge of extinction. If not conserved, this will result in mass extinction of snakes which can be a great threat to humanity. Thus the conservation of Snakes is the need of time. I sincerely apologize for the difference in font size as per page adjustment. So let's start the snake tour and learn about snakes from a different perspective.

- Rahul Shinde

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- First Aids
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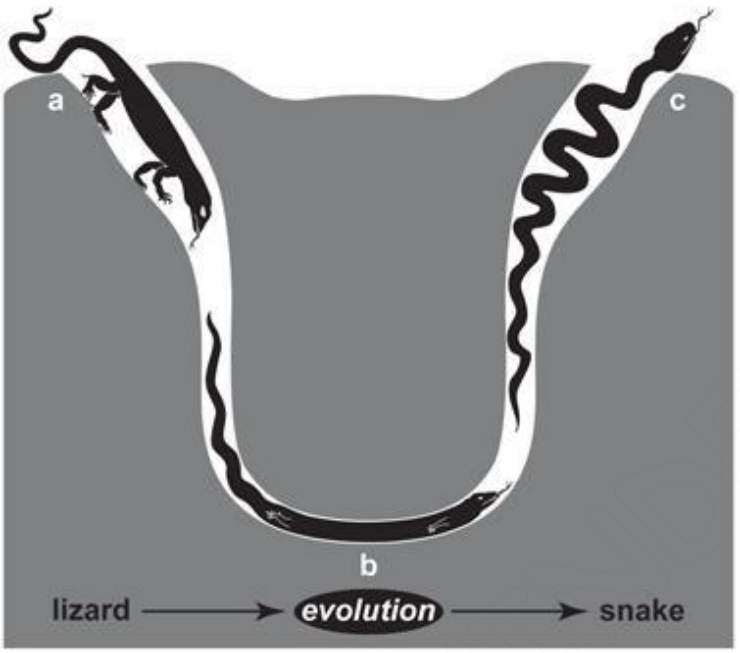
Evolution of Snakes



Fossil studies have revealed that snakes have existed since about 15 million years ago. Even though snakes are reptiles, some years ago they also had legs like lizards, but as they were hampered in moving through their burrows, they began to use their legs less and eventually lost their legs. The remains of legs are still visible in pythons. Since snakes have existed before humans, it would not be a stretch to say that snakes are the real claimants to the places we stay. So instead of saying that the snake comes into our house, it would be correct to say that we encroach on the snake's house and live there.

Classification of Snakes

SNAKES can be classified according to their toxicity as Venomous, Semi-Venomous & Non-Venomous.

NON VENOMOUS:- These Snakes lack fangs & Venom Sack. Bites by these Snakes are non lethal to humans.

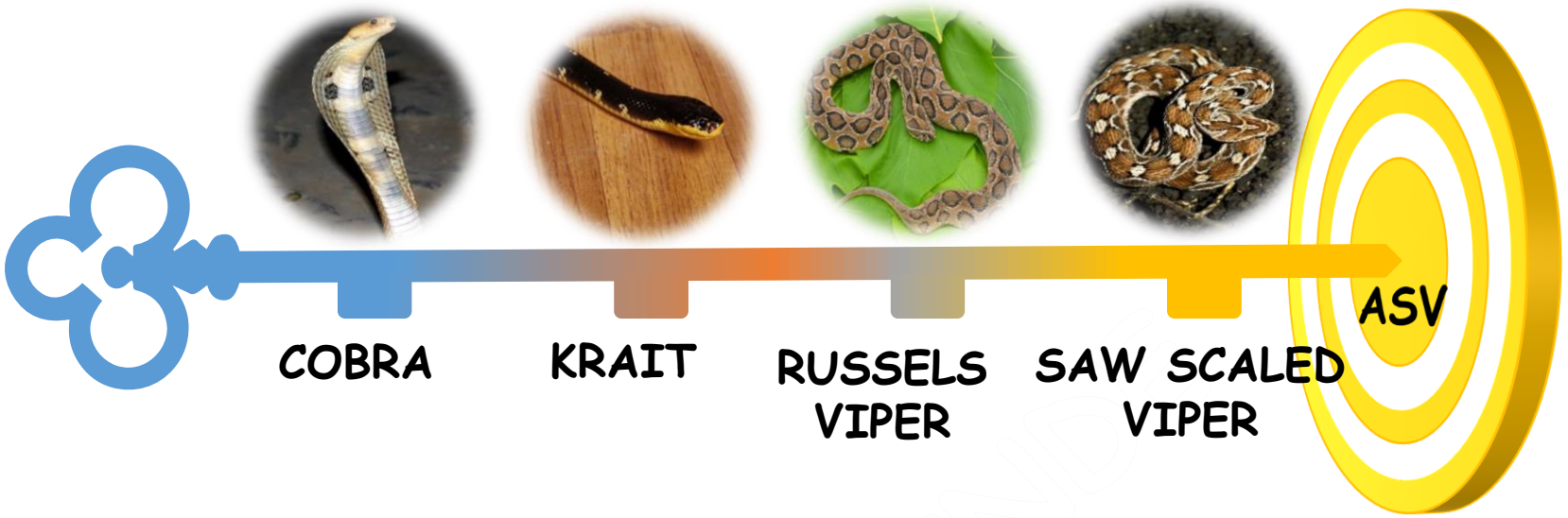
SEMI VENOMOUS:- These Snakes are considered Mildly Venomous when any aspect of their bite due to modified saliva or toxin delivery system (such as fangs) which deliver toxins that are fatal to their prey. Generally the bites from these snakes are not dangerous to humans.

VENOMOUS:- Venomous snakes are species that are capable of producing venom, which they use for killing prey, for defense, and to assist with digestion of their prey. The venom is typically delivered by using hollow or grooved fangs. Bites from Venomous Snakes can be life threatening to Humans.

Amazing facts about snakes

- Snakes are cold blooded & cannot bear a temp less than 8°C & more than 45°C.
- Belcher's sea snake is considered to be world's most venomous Snake.
- Outside of Antarctica and the North and South poles, snakes are found nearly everywhere on Earth except for Greenland, Iceland, Ireland, and New Zealand.
- Intense fear of snakes is called ophidiophobia.
- Snake scales (and rattlesnake rattles) contain keratin – the same substance found in human hair and nails.
- A Snake can live without food for a greater period of time. An Indian Python went without any food for 2 years 9 months.
- Indian Krait Species is Considered to be Asia's most Venomous Snake.
- Vine Snake is the only Indian Snake Species to have Horizontal Pupil.
- Snake's Body contains 70% of Water.
- Most Snake bites cases in India are in September Month.
- Colubridae is the world's largest Family Of snakes comprising of 60% Species.
- Viperidae Is the most advanced family of Snakes.

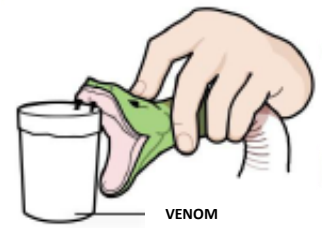
Anti Snake Venom *(ASV)*



The French scientist Albert Calmette developed the first anti venom by 1895 (against the venom of the cobra).
In India Polyvalent type of Anti Snake Venom is made by combining Venoms derived From the BIG 4 namely Cobra , Krait, Russel's Viper & Saw Scaled Viper.
Small doses of venom or venom components are injected into the horse, and the dose gradually increased as the horse builds up a tolerance to the venom. In response to the introduction of the venom (a foreign substance), the Horse produces antibodies to the venom. When the doses being injected are large, the amount of antibody produced is large. These antibodies are harvested by taking blood from the animals and separating out the antibodies, which are then fragmented and purified by a series of digestion and processing steps. When injected into a patient, the binding sites on the antibody fragments bind to the venoms or venom components in the circulation and neutralize the activity of the venoms in the patient.

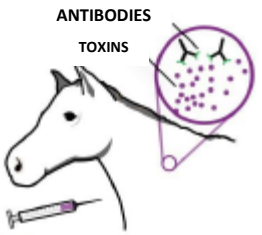
Anti Snake Venom *(asv)*

1



Venom is extracted from a Snake & collected in a flask

2

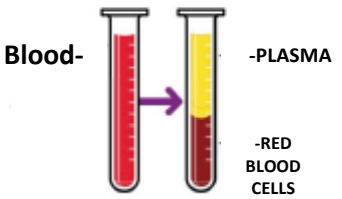


Venom is purified and a small amount of it is injected into the horse's body

3

The Horse receives several doses of Venom for few months. Eventually so many Antibodies are produced in horse's body.

4

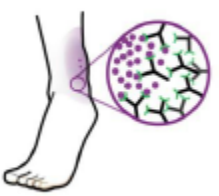


After a few months blood is extracted from the horse's body & plasma which contains antibodies is extracted by a machine.

5

The Plasma is sent to a lab where it is purified and packaged after few process. Now the ASV is shipped in vials

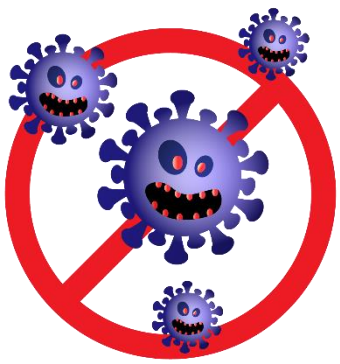
6



In hospitals the ASV is administered to the Bitten patient. The antibodies present in ASV circulate through the body and neutralize the Toxin molecules

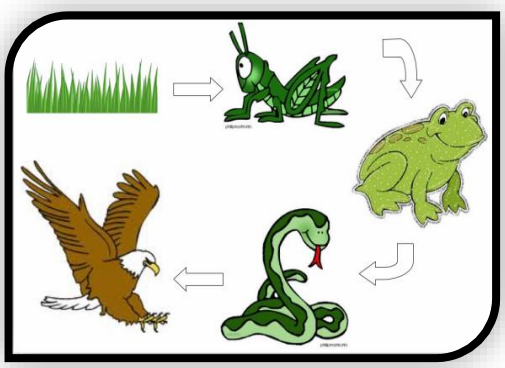
Importance of Snakes

Snakes as predators, feed on frogs, insects, rats, mice, and other rodents (that destroy crops), helping to keep prey population under control. By eating rodents, snakes keep the population of rodents under control, thus preventing zoonotic disease transmission, and contributing to food security.



Snakes also play a role in disease prevention and provide benefits to agricultural communities. Rodents are carriers of many zoonotic diseases (like Lyme disease, leptospirosis, Plague, hantavirus) which affects humans, dogs, cattle, sheep, and other domestic animals.

The only proven and effective therapy for snakebite is the snake-anti venom, is also derived from snake venoms.



Snakes are an important part of Food Chain in Nature.

Estimates suggest that nearly 200 million people can be fed by food grains that are destroyed by rodents every year. Offering natural, environmental-friendly, and free service to mitigate against rodents, snakes are truly "farmer's friends.

Snakes are also a source of many medicines. Medicines made for Cancer, Heart Attack, Blood Pressure, Anesthesia, Pain Killers, Etc have a quite amount of processed Snake Venom.

Water Snakes like Checkered Keelback , Olive Keelback feed on Mosquitoes & their eggs (Larva) thus keeping a control on the diseases like Dengue, malaria etc. to be spread.

Damage caused by Rodents

Snakes are the best natural Pest controllers. Rats and mice, along with other small mammals, make up a significant portion of a snake's diet, keeping the rodent population under control, providing a safeguard to the crops and preventing humans from frequently interacting with some diseases that rodents may carry.

- A Big Snake like Rat Snake (ptyas mucosa) in its life span can keep a control on more than 5 lakh rodents that destroy the crops.
- A pair of Rat or Mice gives birth to 850 juveniles in a year.
- An average sized Snake can eat 2 Rats or mice a week (meaning a Pair in a week)
- If the pair gives Birth to 850 juveniles in a Year (52 Weeks).
- So 850(juveniles) × 52(weeks) = 44,200 (approximately)
- If the Snake lives an average of 12 years then, 44,200 × 12 = 5,30,400. (keeping control over more than 5 lakh rodents)

Note:- The above calculation is an approximation & the actual numbers may vary….

Reasons behind decline in Snake population

A lot of myths and misconceptions associated with snakes contribute to its shrinking population. snakes are under threat. Factors like rapid urban development, habitat destruction, persecution, illegal trade, and invasive species, among others. Many species of snakes are endangered and some are on the verge of extinction.

Deforestation

Illegal Trade

Pollution

Myths & Superstitions

Road kills

Harmful Pesticides

How to keep away Snakes

• Snakes enter areas inhabited by people in search of food and shelter. The easiest thing you can do is make your home and yard less appealing to them. Clean it regularly.

• Prevent snake problems by removing their food sources like rodents.

• Snakes like cool damp places in Summer & Hot Dry places in Winter to hide. Seal entry points like water pipes, drainage chambers.

• Make sure door sweeps and window screens fit tightly. Cover Holes and Cracks that lead into your home with plastering material.

• Snakes also find shelter under scrap metal, wood piles, trash, and other debris. Keep your yard area free of possible hiding places, including tall grass and weeds which can attract prey for snakes.

• Trim the branches of creepers & trees that touch the Walls, Windows & Doors of building.

• Store Firewood & Cow Dung Cakes away from the house & above the ground level.

• Keep Flowerpot, Creeping Plants away from Doors & Windows above the ground level.

What if Snake enters house

- Call an experienced and knowledgeable snake rescuer without killing the snake.
- Keep a sharp eye on the snake, so that the snake rescuer can find the snake quickly.
- Children and elderly people in the house should be taken to a safe place.
- Abundant lighting should be arranged at the place where the snake has gone.
- The torch should be kept in a place where everyone can find it.
- If the snake rescuer is not available, Call 1926 a toll free number of forest dept.
- If you don't get any help then take a big stick or bamboo. A small wire should be tied in front of it and a hook should be made, and with the help of the hook the snake should be caught and left far away from the isolated area.
- Although the snake is small, don't try to provoke it. Doing so can lead to death.
- Watching the videos on social media and catching the snake can also lead to death as Snake Catching needs a lot of experience.

How to avoid Snake Bites

Keep your Environment CLEAN.

When Working in Fields & grassy areas always wear GUMBOOTS & While wandering through Forest wear a CAP or HAT & GUMBOOTS.

Use a torch & Stick while going out in dark night. Hit the stick on the ground regularly. This will generate vibrations that will allow the Snake to run away from your path.

Check your Shoes Before wearing them.

Waste Food attracts rodents which attracts Snakes. Instead of throwing Waste Food around, dispose it in Garbage Box that is kept away from the house.

Avoid sleeping on the ground. Use a Cot or Bed to Sleep. Most of the times Snakes avoid to climb over the Bed or Cot.

Two Headed Snake

From ancient times we have heard that snakes have many heads, eg:- Five-headed Bhujang nag, Kalia nag. But no snake with so many heads has been found till date and it is not possible in nature. Even today we hear this phrase, "Don't speak with both mouths like a mandula"(Red Sand boa). There is a misconception that the 'Red Sand Boa' snake has two heads on either sides. This is not true as Red Sand Boa is a snake with only one head. However, its tail looks exactly like a head, and because of this, one can often get confused with the tail as head and may misidentify that it has heads on both sides. You must have noticed that Red Sand Boa snake has only one head. But can there really be a two-headed snake?

Head & Tail of Red Sand Boa Looks same.

The answer is Yes, there are two-Headed snakes, but such snakes have two Heads on the same side. This is not a separate species of snake, but two Heads can be found in any snake species. Such snakes are born due to some genetic disorders. The phenomenon of having more than one head is called Dicephaly or polycephaly. Such examples are also found in humans.

Because of one body and two heads, both brains of such snakes work differently and they have to compete while hunting, eating food, drinking water. Since these things happen continuously, they compete repeatedly and the snake dies and thus such snakes cannot survive for long in nature. It can be seen that there are many examples of snakes having two heads in species like Cobra, Russel's Viper, Trinket, Sand Boa, Wolf Snake etc. in India, in fact even in Maharashtra.

A Two Headed Trinket snake born by genetic disorders

Albinism

The colour of the snake depends on the melanin present in the skin. The more melanin in the skin, the darker the colour of the snake. Melanin in the Albino snake is very less, so the colour of these snakes looks pale. The eyes and tongue are red or pink in colour. White yellowish colour replaces the original colour of the snake and in such cases it becomes difficult to identify the species of the snake. Albinism is a type of colour defect that can occur in any snake. Albinism can also be genetic. Compared to other snakes, life expectancy of colourless snakes is less because these snakes suffer from extreme cold and heat. This affects their quality of life and these snakes become weaker. Due to the yellowish white colour of the skin, these snakes are easily spotted by enemies and prey.

Leucism

Leucism is a word that describes an animal whose skin, scales, or feathers are white, blotchy, or pale in coloration. This physical characteristic is due to a partial loss of multiple types of pigment which leaves the animal white or pale-looking.

Leucism can affect the entire animal's body surface or only parts. This means the animal might have some normal-looking coloration while other parts of it are white or lacking of color. Interestingly enough, there is even a special term for partial leucism. It's known as "piebald" or "pied."

Difference Between Albinism & Leucism

Albino Snakes have red eyes, whereas leucistic Snakes do not. Leucism and albinism are very similar genetic mutations that cause reptiles and amphibians to appear pale in color or completely devoid of color altogether. Red coloured Eyes means that Snake is an albino and any other color indicates leucism.

Albino Wolf Snake with red eyes

Leucistic Wolf Snake with Normal eyes

Snake friend / Sarpmitra

India was long characterized as the 'land of snake charmers', bringing to mind images of dusky men with dangerous-looking snakes winding round their bodies while they played the flute. Snake is a national treasure and it is the duty of every citizen to protect it. Earlier, Snake Charmers used to play with snakes and spread fear and superstition about snakes. How can the film industry lag behind? They also presented the snake to the world in a negative perspective.

First Snake friend / Sarpmitra of Maharashtra

Around 60 years ago, the first snake Friend in Maharashtra emerged in the village of Dholgarwadi in Kolhapur district. Mr. Baburao Takkekar was the first snake Friend/sarpmitra in Maharashtra. In his childhood Mr. Takkekar used to go to the river to catch crabs. There he used to find Snakes. Having a strong desire to catch snakes and learn about them, he seek guidance from books and experts in the Herpetology and in 1964 he started catching snakes in a technical manner. In the year 1966, with this inspiration, the world's only snake school was started, which is continuously working on snake conservation.

Mr.Baburao Takkekar
the First Sarpmitra of
Maharashtra

Duties of Snake Friend / Sarpmitra

As the Sarpmitras began to rise, the veil of the Snake Charmers fell and they began to fall. Snake Charmers are still seen where sarpmitras are not in action. Because of snakes, Sarpmitras have gained a unique importance. Due to their determination and desire to save snakes, Sarpmitras have gained a place of honour in the society. Regardless of time, Weather, Day, night or any obstacles, the Sarpmitra follows his duty to save the snake. Catching the snakes and releasing them back into the nature (without any expectations) seems to be what Sarpmitras have been doing since few decades. But because of few people who follow malpractices like doing stunts with Snakes, handling Snakes without prior technique & posting photographs on social media for few likes, comments & popularity, doing this often involves risking life and has also Sometimes resulted in loss of life. Due to such things, the image of Sarpmitra who work with passion and sacrifice seems to be tarnished. Such people who perform stunts with snakes on social media need to be curbed as early as possible.

Standard Operating Procedure (SOP)
For Snake Friends / Sarpmitras

Before attending the call...

1. It should be verified whether it is really necessary to catch the snake. When the snake comes near the house, an atmosphere of fear is created. But it is not necessary to catch the snake every time, Sometimes it also goes away on its way.
2. Reassure the caller and ask him to remain calm.
3. Note down his/her address, nearby landmarks etc. carefully.
4. Ask the bystanders to take appropriate care until you reach the spot. (It is strictly recommended not to attend the call if you are drunk. It may lead to severe accidents)
5. Check and carry snake catching materials before going to the rescue. Wear shoes.
6. Also ask if they have called other rescuers for rescue.
7. Plz avoid using narrow headed & sharp toothed tongs as they cause severe damage to vertebral column of the snake which is irreversible. Also such tongs are illegal as per Law.(See the next page for reference)

Snake Rescue Kit

Invalid Tongs

Valid Tongs

PVC pipe

Stick/Hook

Snake Bag

Complete Snake Rescue Kit

While Attending The Call...

1. If the snake is trapped, provide adequate light and ask them to clear the trap.

2. Check the snake catching materials (hooks, PVC pipes, tubes, tongs) brought with you. Use them.

3. The snake should be handled as little as possible, in fact it is best to catch it with snake catching materials.

4. If the snake is feeding, wait for it to complete. If the snake is fed or injured, it should be caught directly in a dark-colored bag with the help of the supplied pipe without touching it at all.

5. It is always best if two snake Catchers go for snake rescue work.

6. The time of catching the snake, the breed of the snake, Caller's details & the feedback should be written down and a record book should be prepared so that there is evidence of the snake being caught. This also helps in keeping statistical record of Snakes found in specific period of time & region.

7. The Below Record Sheet will help you in keeping the record.

Record Keeping

ANIMAL RESCUE RECORD

Date : ___/___/_____
Call time:- _____
Rescue time:-_____

Name:- _____

Address:- _____

_____

Mobile No. :- _____

Rescuers name:- _____

_____

Animal Name:- _____

Animal size (Length):-_____

Venomous. ( )

Semi-venomous. ( )

Non-venomous. ( )

Animals Rescue Record

Eye-witness Name & signature:-

1) _____

2)_____

Description:- _____

_____

_____

_____

Signature,

_____

With Feed Back

While releasing the snake…

1. If the snake is non-venomous, it should be released as near as the place where the snake was found. Convince people about its importance.

2. If the snake is venomous, release it from human habitation at about 500 metres away.

3. If the snake is nocturnal, it should be released at night. If it is diurnal, it should be released during the day.

4. The snake should be released into the wild as soon as possible under the guidance of the Forest Department as per the local snake rehabilitation policy within 24 hours.

5. Snakes should not be kept with you except for medical treatment as per the permission of the Forest Department.

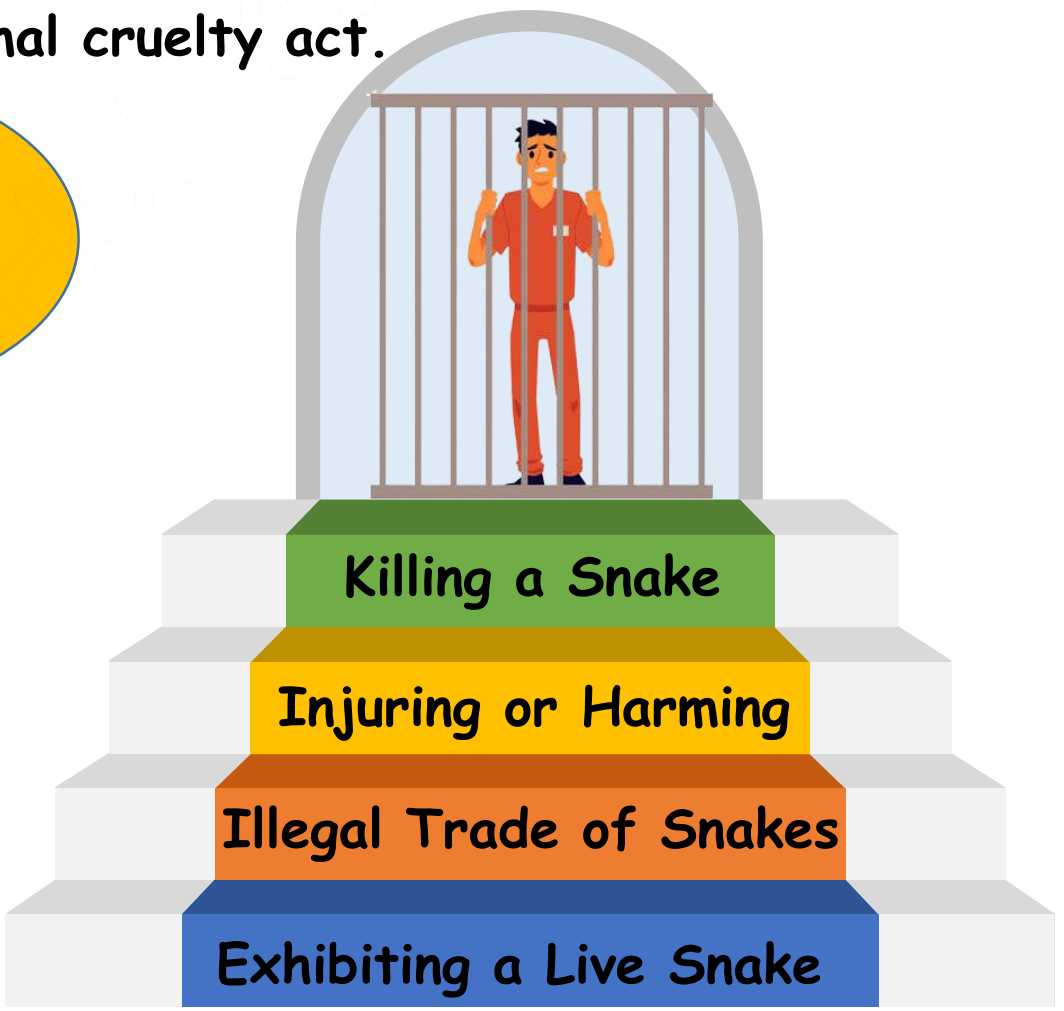
6. Under no circumstances should a live snake be exhibited. Doing so constitutes an offense under the Wildlife Protection Act.

7. Do not handle snakes if not necessary. Unnecessary handling of snakes may lead to its death.

8. Take a video or photo of snake with Location as evidence while releasing it. Do not perform stunts or mishandle the Snake while releasing it. Many people have got bitten doing so.

WILDLIFE PROTECTION ACT 1972

The Wildlife Protection Act came into force in 1972 and snakes are also protected under this Act.(Illegally) catching, killing, exhibiting, trafficking, possessing and torturing snakes is an offence. Snakes are also protected under the Wildlife Export Policy Act,1975. Wildlife Protection Act 1972 has 6 Schedules. Snakes are protected under Schedule I (Part 2), Schedule II (Part 2) and Schedule IV. Schedule I (Part 2) and Schedule II (Part 2) have more protection for the snakes in this list and the rules are very strict. Violation of these rules (killing snakes, exhibiting them, trafficking, torture etc.) may impose 3 to 7 years imprisonment and a fine of 10 to 15 thousand Rs. or both can be imposed. Strict rules also apply to snakes in Schedule IV. Snakes are also protected in the Animal cruelty act.



Snakes Protected Under Schedules of Wildlife Protection Act 1972

Schedule I

1) Indian Python (all Python Species found in India)
2) Indian Egg eater snake.

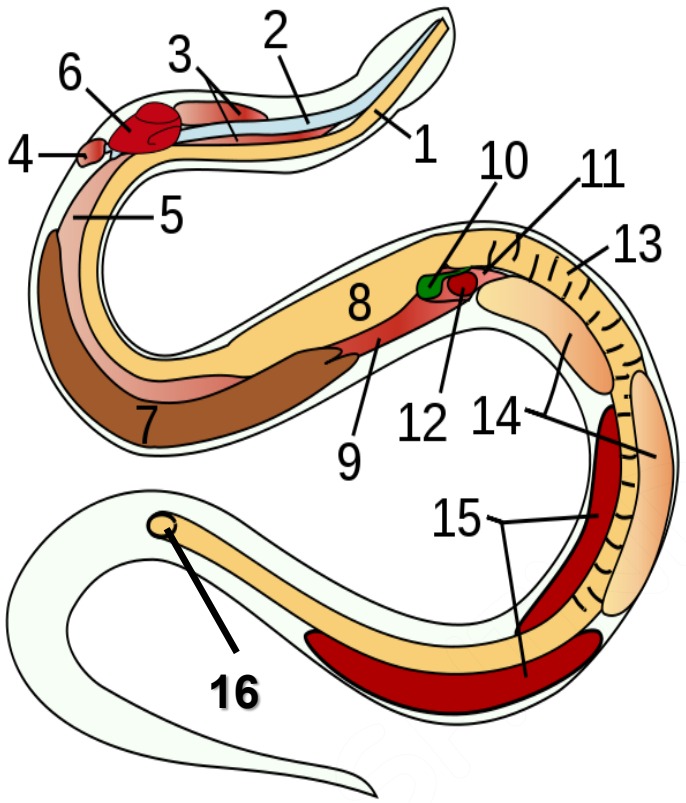
Schedule II

1) All Species of cobra found in India 2) King Cobra 3) Rat Snake 4) Checkered Keelback 5) Olive Keelback 6) Russel's Viper 7) Dog-faced Water Snake.

Schedule IV

All snakes except those in Schedule I and Schedule II are included in Schedule IV.

SNAKE ANATOMY



1) ESOPHAGUS
2) TRACHEA
3) TRACHEAL LUNGS
4) LEFT LUNG
5) RIGHT LUNG
6) HEART
7) LIVER
8) STOMACH
9) AIR SAC
10) GALL BLADDER
11) PANCREAS
12) SPLEEN
13) INTESTINES
14) TESTICLES
15) KIDNEYS
16) ANUS

BODY PARTS OF SNAKE

Eyes

Snakes have eyes but they are not as sharp as humans. Even though the colour of the snake's body is different, snakes do not see colour images like humans. Their vision is colourless. They see colour images in black and white. Humans see any image in three-dimensions (3D) but snakes see the same image in two-dimensions (2D). This shows how poor the eyesight of snakes is. Snakes do not have eyelids. Instead there is a transparent membrane. It is called Brille. This membrane prevents dust particles from entering into the eyes and protects them. Because snakes do not have eyelids, they sleep with their eyes open. That is why it is difficult to know whether the snake is asleep or awake. Snakes living on trees (arboreal) have sharp eyes while those living in burrows have weak eyes. Pupils of snakes eyes are round, horizontal or vertical. Snakes with round pupils are likely to be diurnal while those with vertical or horizontal pupils are nocturnal.

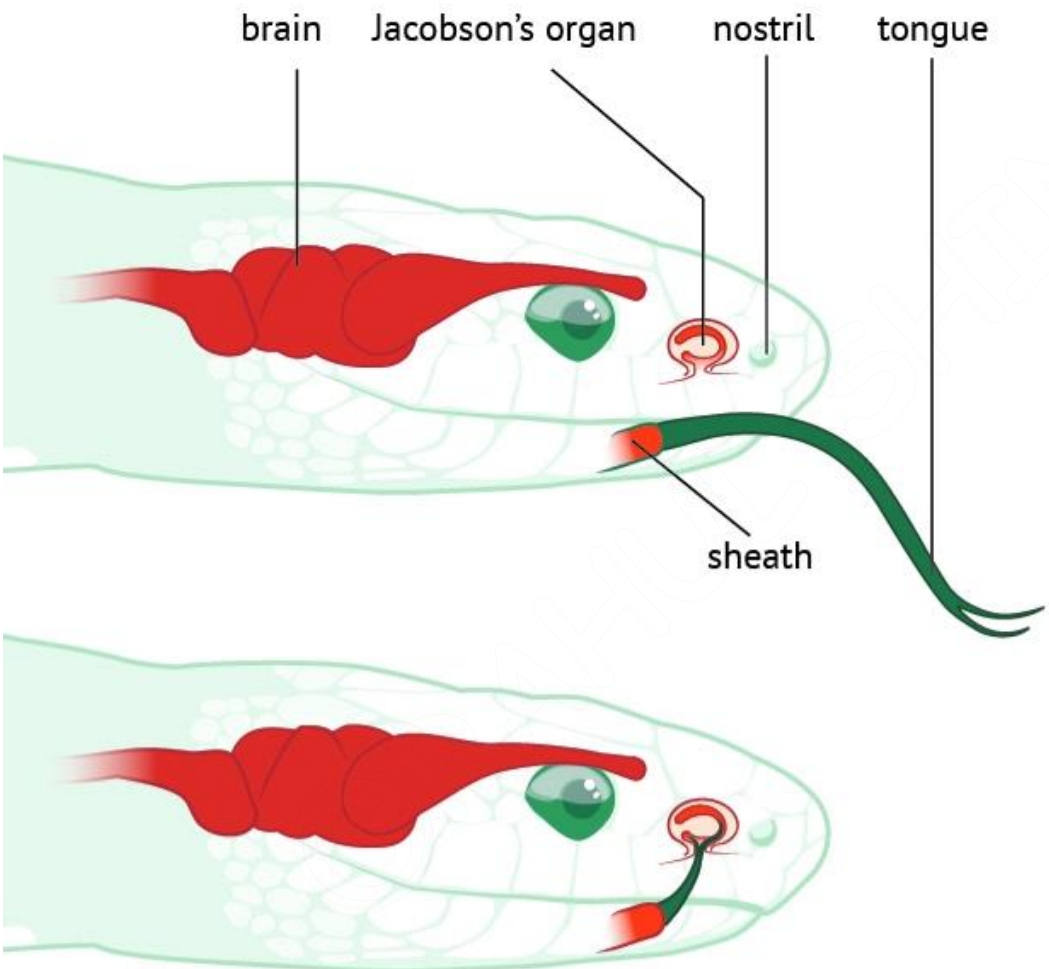
Round Pupil

Horizontal Pupil

Vertical Pupil

Tongue

The snake smells with its tongue. There is a hole in front of the snake's mouth through which the snake can stick its tongue in and out even with its mouth closed.

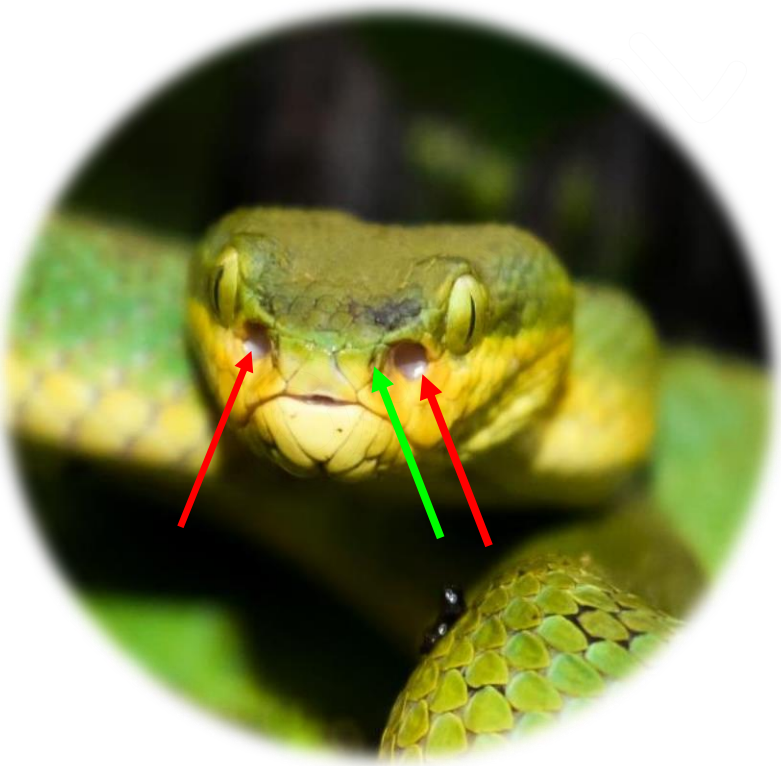


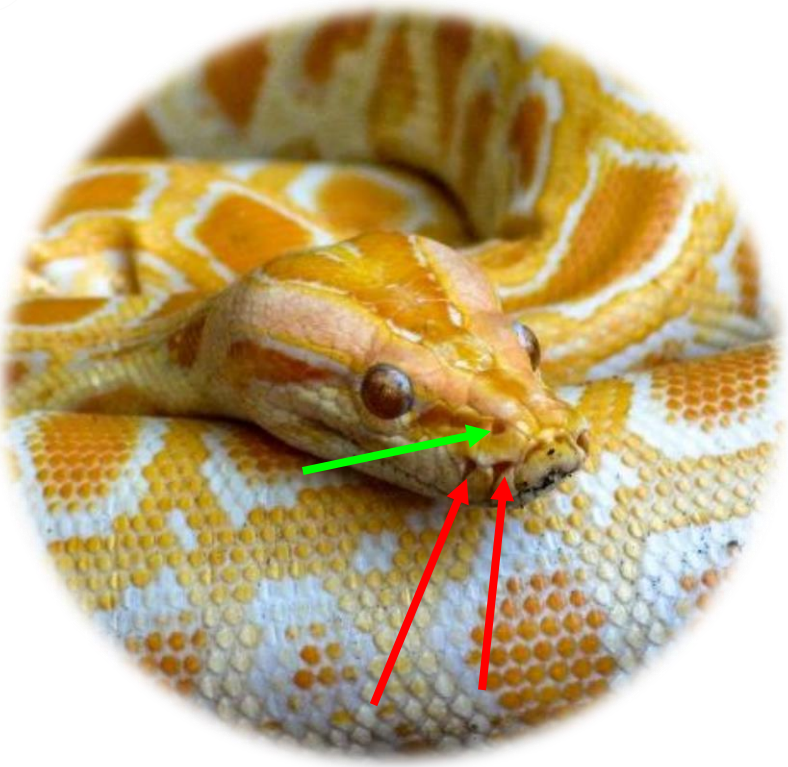
The snake's tongue is bifurcated so it can sense the direction. The smell is isolated and sent to the Jacobson's organ & further to brain. There, the brain determines the type of smell.

The olfactory gland (JACOBSON'S ORGAN) was discovered by the scientist Ludwig Jacobson in 1809, so this gland is called Jacobson's organ. The Smell sense of a snake is ten thousand times more than that of a human.

Thermoreceptors

Some snakes have two or more notches between the eyes and nostrils. These notches are called heat-sensing pits or thermal pits. These pits are larger than the nostrils which can absorb the heat from the body of the animal standing in front of the snake and because of this, the snake can catch its prey accurately even in the dark. These snakes can easily sense even the smallest change in ambient temperature. These snakes can notice even the smallest change of 0.0003 degree Celsius. Scientists have found that some snakes can sense the difference as little as 0.0001 degree Celsius. Pit Vipers and Python snakes found in Maharashtra have heat-sensing pits. These thermal pits are also called Thermoreceptors.



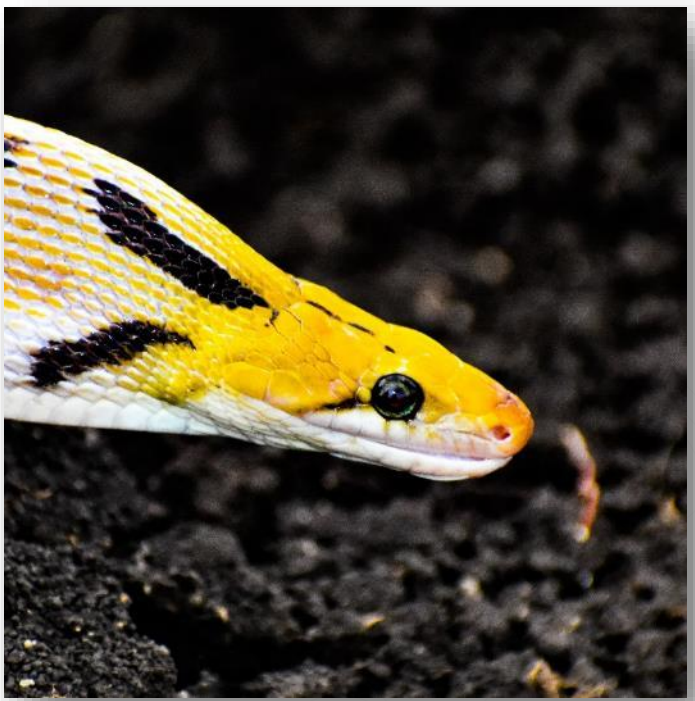


The Red lines indicate the Thermoreceptors or Thermal Pits while the Green lines indicate the nostrils of the snake.

Nose

Snakes use their noses only for breathing. They use their tongues for smelling. Snakes have 2 nostrils. Sea snakes have to come out of the water every 20 to 30 minutes to breathe. Their nostrils are larger than other snakes to get more oxygen.

Nostrils of land-dwelling Terrestrial snakes



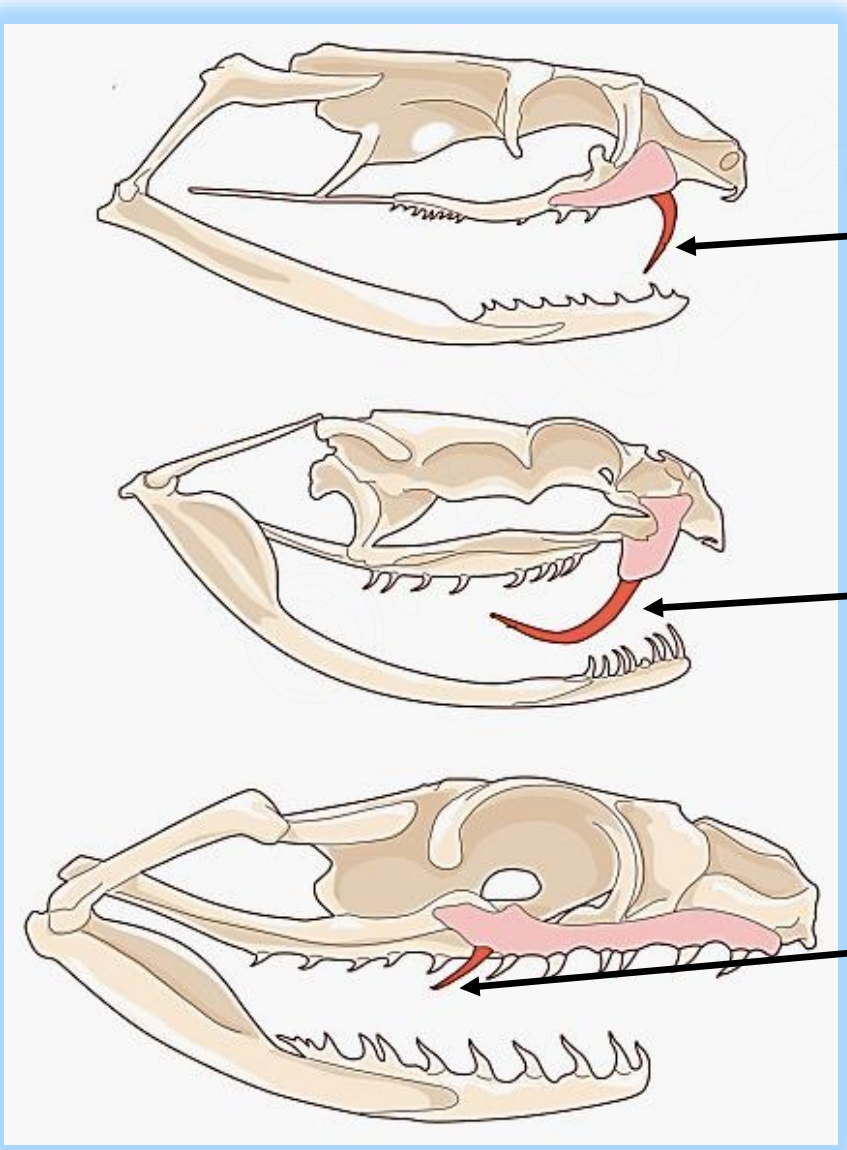
Nostrils of Sea Snakes

Ears

A snake does not have external ears, so it cannot hear any movement or sound around it, and therefore even if you play a flute cannot be heard by the snake. But the snake has ears on the inner side which are attached to its jaw. With this the snake puts its jaw on the ground and picks up the vibrations on the ground.

Teeth / Fangs

A snake has an average of 60 to 80 teeth. All the teeth of a snake are curved inwards. Due to this arrangement of teeth, the snake has to swallow its prey whole without chewing it. Venomous and semi-venomous snakes have two large venomous teeth. These teeths of snakes are located on the upper side of the jaw. These are called fangs. These are hollow and inject venom into the body of the prey. Some venomous snakes have fangs that are folded inward and open when biting.



Proteroglyphous or non movable fangs

Solenoglyphous or Movable fangs

Opisthoglyphous or rear fangs

Tail

Snakes use their tails in different ways in their lifestyle. Different species of snakes have different tail shapes & Characteristics.

Round and Short tail:- These types of snakes use their tails to dodge the prey and the enemy. The head is hidden below the body and the tail is placed on the upper side of the body. Due to this, the prey and the enemy mistake the tail for the head. Eg- Red Sand boa, Banded Krait etc.

Long and slender tail:- These types of snakes use their tails to balance their bodies on trees while some snakes move their pointed slender tails like worms to attract prey. Eg – cats Snake, trinket, Vine Snake etc.

Short, Rough tail

Tails of some Snakes have keeled scales. These Keeled Scales are very rough. Ex- Sand Boa

Paddle shaped Tail

Such snakes use their tails to swim in water. Ex:-Sea snakes.

Oblique flattened tail

Snakes with such a tail has been found to dig a hole in the ground with their tail and close the entrance of the burrow with their tail after coming out of the burrow. Ex- Shieldtail Snake.

Head

Round shaped head

These type of Snakes live underground. Round Shaped Head helps them in burrowing through mud. Common Sand Boa, Red Sand Boa are the perfect examples.

Triangular Shaped head

Shape of the head of some snakes is broad at the neck and tapering near the mouth. These types of snakes are mostly seen hiding under dry leaves. Eg:-
Russel's Viper, Hump Nosed Pit Viper.

Narrow shaped head

Some Snakes have narrow shaped head which allows them to move easily through branches of trees. All Species of Vine Snakes are the perfect example.

Scales

Scales are the covering of the snake's body. Scales protect the snake's skin in many ways. Scales protect the skin from friction during crawling. It also protects the skin from ultraviolet and infrared rays. Where a snake lives determines the type of its scales.

Smooth scales

The scales of snakes living underground are smooth. These types of scales make it easy for snakes to move freely from their burrows. Ex:- Cobra, Rat Snake, Smooth Snake.

Rough Scales

Snakes with this type of scales live more in peat under dry leaves and junk places. These scales protect snakes from sharp things. Ex- Striped Keelback, Green Keelback, Saw Scaled & Russel's Vipers.

Spike Or Warty Scales

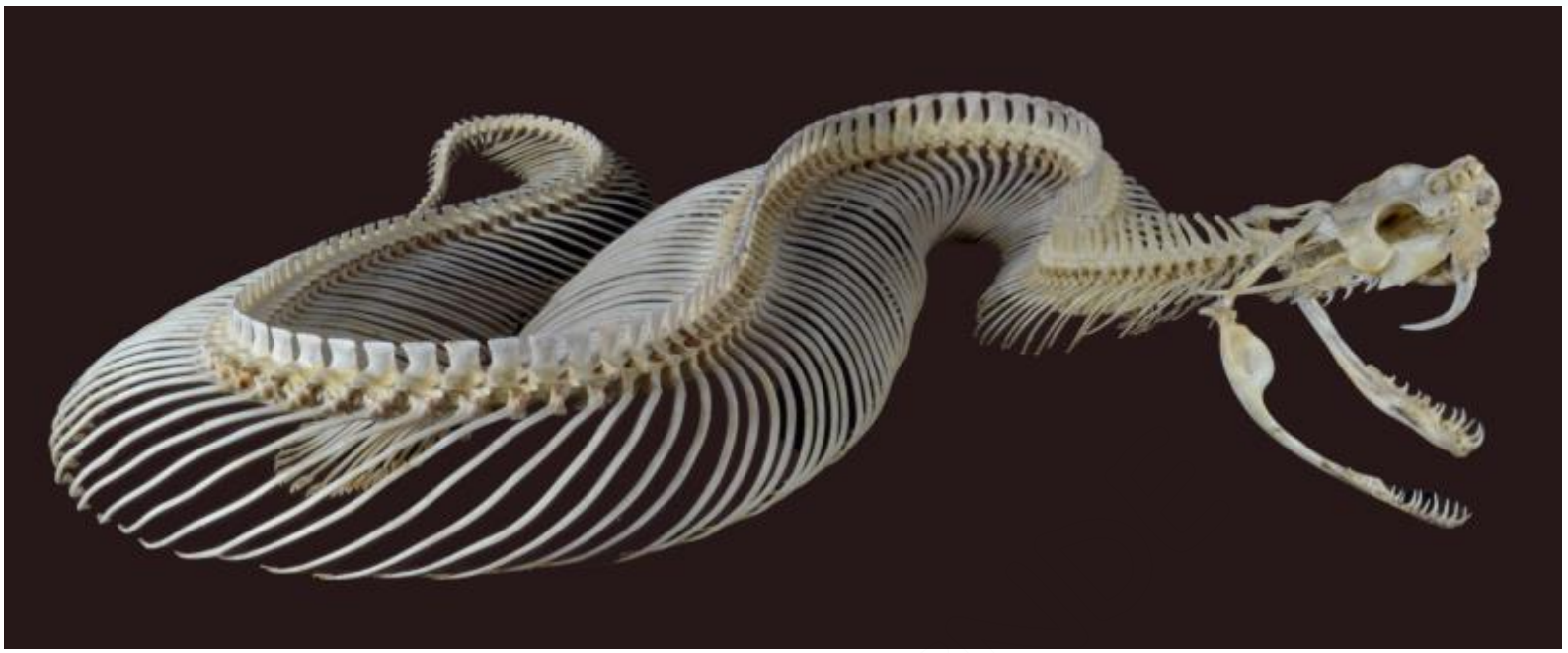
These types of scales are mainly found in sea snakes. These scales are like spiked warts. They protect the skin from friction in water while swimming. Ex:- File Snake, Sea Snake.

Shedding / Moulting

A misconception is heard even today that when a snake sheds its skin means it becomes immortal. But shedding or moulting of skin is a natural activity. Humans too shed their skin, but as the human body has sweat glands, the body's waste products are thrown out through sweat. Dandruff, hair and nails are the types of moulting. But since the body of the snake does not have a sweat gland, it sheds its skin continuous from the tip of the nose to the tip of the tail. The Shedded skin is a layer of dead cells. A snake that is small in size and age sheds its skin quickly.

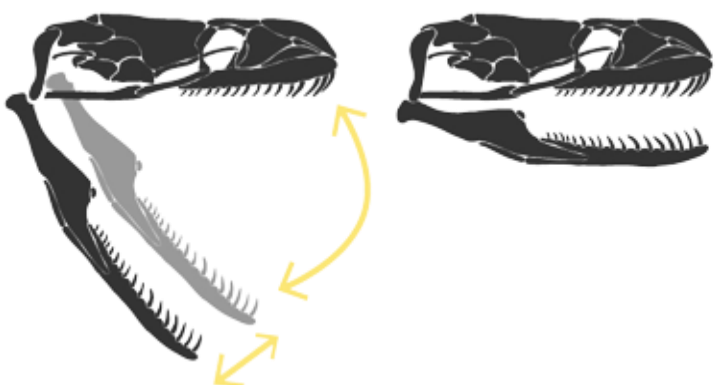
Shedding/moulting Process:- During this period the snake becomes very irritable. The eyes of the snake are also covered with the skin and it looks Semi transparent & blurry. This period is about 8 to 12 days. The snake's discoloured appearance is due to the lymphatic drainage produced between the snake's body and its moult. While shedding, the snake rubs its head against a rough surface and first sheds from the mouth and then completely sheds up to the tail. Sometimes the snake's moult does not come out completely and the moult that is partially left looks like hair. But a snake cannot have hair on its body because hair growth requires follicles which are not present in a snake. New Born snakes moult in First two to three days after birth.

Skeleton



A snake is a reptile and has 130 to 500 bones in its body. The number of bones in its body is determined by the species of snake. That is, small snakes have less bones, while large snakes like pythons have more bones. But because of the flexibility of the snake, we think that the snake should have no bones in its body. Each rib in the trap is attached to a muscle. The body of the snake is so flexible because the bone and muscle are connected to each other with flexibility and strength.

JAWS



The jaws of snakes are not connected to each other like the jaws of humans. Because of this, the snake can eat food larger than the size of its mouth. The jaws of the snake can open up to 150 degrees.

Venom

Venomous snakes belonging to the family Viperidae, Elapidae, and Hydrophidae, produces snake venom in order to facilitate immobilization and digestion of prey, act as defense mechanism against threats. Venom contains zootoxins which is a highly modified saliva that is either injected via fangs during a bite or spitted. The modified parotid gland, encapsulated in a muscular sheath, present on each side of the head, below and behind the eye, have large alveoli which temporarily stores the secreted venom and later conveyed by a duct to tubular fangs through which venom is injected. Venoms are complex mixtures of more than 20 different compounds, mostly proteins and polypeptides, including proteins, enzymes and substances with lethal toxicity which are either neurotoxic or haemotoxic in action and exert effects on nervous/muscular impulses and blood components. Lots of research are directed to use venoms as important pharmacological molecules for treating various diseases like Alzheimer's disease, Parkinson's disease etc.

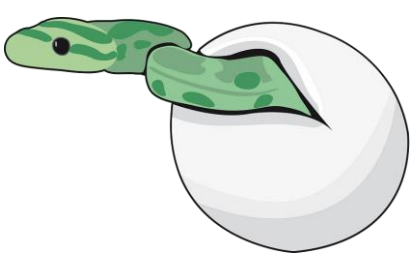
Mating of Snakes

A Competition or fight for mating between two Males.

Male-Female Mating

Breeding of Snakes

Most of the snakes breed once a year and their season is also the same. Snakes mate in the summer and breed in the rainy season. That is why the number of juveniles is more in the rainy season. During the mating season, the female releases a type of sex pheromones, the smell of which attracts the surrounding males to the female. Sometimes more than one male is attracted to a female and there is competition between them for mating. At such a time, two males try to make the other one fall down by raising each other up high. The one who stands high wins to mate with the female. In mating the male-female lie in this position on the ground. After mating, the male and female go in different directions. They do not mate for life. Snakes reproduce in two ways. Some snakes lay eggs while others give birth to live young. Some snakes have only females and no males. (Ex:- Brahminy Worm snake) means that these snakes do not mate but reproduce through the process of parthenogenesis. Some female snakes store male sperm in the oviduct and fertilize it at the right time to give birth to eggs or young. According to a study, female stored sperm in her oviduct for more than 5 years. Eggs hatch 40 to 100 days after laying the eggs. After laying the eggs, the female does not guard the eggs. Exceptions are king cobra, pythons. King Cobra is the only snakes that builds nests and lay eggs in them.



Scaleless snakes

(Merolepidosis)

The scales of the snake protect the skin from friction/ abrasion with sharp objects like stones, thorns, etc. Therefore, the snake can move through any obstacle and difficulty. But in nature, some snakes are born without scales. There is no or very little layer of scales on their upper side of the body (Dorsal). But the lower part (Ventral) of the snake's body is covered with scales. Being Scaleless is called merolepidosis. It is not a skin disease but a deficiency of the outer skin (Epidermis) from which scales are formed. The main reason for the absence of scales on the snake body is the lack of β-keratin. It is a type of protein. This deficiency may be present at birth or occurs over time. If both the male and female are scaleless, their young ones are likely to be born Scaleless & if one of the male or female is scaleless, its young are born partially scaleless.

These snakes have to struggle to survive in the wild. Due to the lack of scales, they move slowly, making it difficult for them to hide and are easily spotted by the enemy. If these snakes move too fast, the skin can be damaged by excessive friction. Due to the lack of scales, ultraviolet and infrared rays have a great effect on these snakes. If these rays fall directly on the skin for a long time, there is a high possibility of causing other skin diseases. However, these snakes shed skin. Compared to other snakes, the shedded skin of these snakes is very thin. These snakes look like fake rubber snakes. As there are no scales on the dorsal side, their skin looks like it is burnt. Due to conflict, these snakes do not live long and hence are very rare.

World's First Record of Merolepid or Scaleless Cobra

Rahul Shinde (Ophiologist & Author of this Book) & Dr. Amit Sayyed a well known Herpetologist reported two cases of merolepidosis in Indian Spectacled Cobra (Naja naja) from Solapur District, Maharashtra. The research paper of the same was been published in an international Journal of America named REPTILES & AMHPHIBIANS. This is supposed to be the World's first record of merolepid or scaleless Indian Cobra (Naja naja) Snake ever found. On the next page the research paper is added for reference.

REPTILES & AMPHIBIANS

Two Merolepid (Partially Scaleless) Indian Cobras (*Naja naja*) from Maharashtra, India

Amit Sayyed[1] and Rahul Shinde[2]

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The epidermal scales of reptiles provide protection against abrasion, ultraviolet irradiation, and water loss (Alibardi 2003). Nevertheless, merolepid (partially scaleless) snakes have been found in nature (e.g., Stickel 1942; Smith et al. 1996, 2000) and individuals without dorsal scales are commonly bred in captivity (e.g., Bennett and Licht 1975; Ultimateexotics 2019; Tornio 2021). Licht and Bennett (1972) found no difference between scaleless and normal snakes in rates of pulmocutaneous water loss and heat transfer. Bennett and Licht (1975) demonstrated that rates of water loss through the skin was equal to or less than those of normal snakes, noted that scaleless snakes sometimes kept themselves slightly more hydrated than normal snakes, and indicated that scaleless snakes in nature exhibited no more scarring than fully scaled snakes. However, the paucity of reports of wild-caught merolepid snakes (e.g., Smith et al. 1996) suggests that scaleless snakes likely suffer higher mortality than fully scaled snakes.

Herein we report two cases of merolepidosis in Indian Cobras (*Naja naja*) from Solapur District, Maharashtra, India. The first (Fig. 1) was a subadult (~75 cm total length) rescued from a residential area near Jam Mill in December 2012 by Audumber Gejage. The second (~81 cm total length) was rescued on 31 December 2019 by Pravin Jeure and Siddharam Koli at Soninagar, Modisolapur. Scales on top of the head, supra- and infralabials, and dorsal and lateral body scales were missing in both snakes; however, rostrals, mentals, and ventral scales, including cloacal plates and subcaudals, were present. After examination, both snakes were released into natural habitat.

Mutagenic effects of pollution have been known for decades (e.g., Sutton and Harris 1972), and Gray et al. (2001) listed multiple abnormalities (including merolepidosis) observed in Eastern Garter Snakes (*Thamnophis s. sirtalis*) that might be linked to environmental toxins at a superfund site in Pennsylvania, USA. To the best of our knowledge, this is the first report of merolepid snakes in India. Whether pollutants from the many textile and sugar mills in the area are responsible is unknown but the presence of these merolepid cobras indicates that further research is necessary.

Fig. 1. A merolepid (partially scaleless) subadult Indian Cobra (*Naja naja*) from Solapur, Maharashtra, India. Photograph by Rahul Shinde.

Acknowledgements

We thank Audumber Gejage, Pravin Jeure, and Siddharam Koli for informing us about the rescues; and Yunus Maner, Devendra Bhosale, and Nisar Nadaf for their valuable support.

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Alibardi, L. 2003. Adaptation to the land: The skin of reptiles in comparison to that of amphibians and endotherm amniotes. *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 298: 12–41. https://doi.

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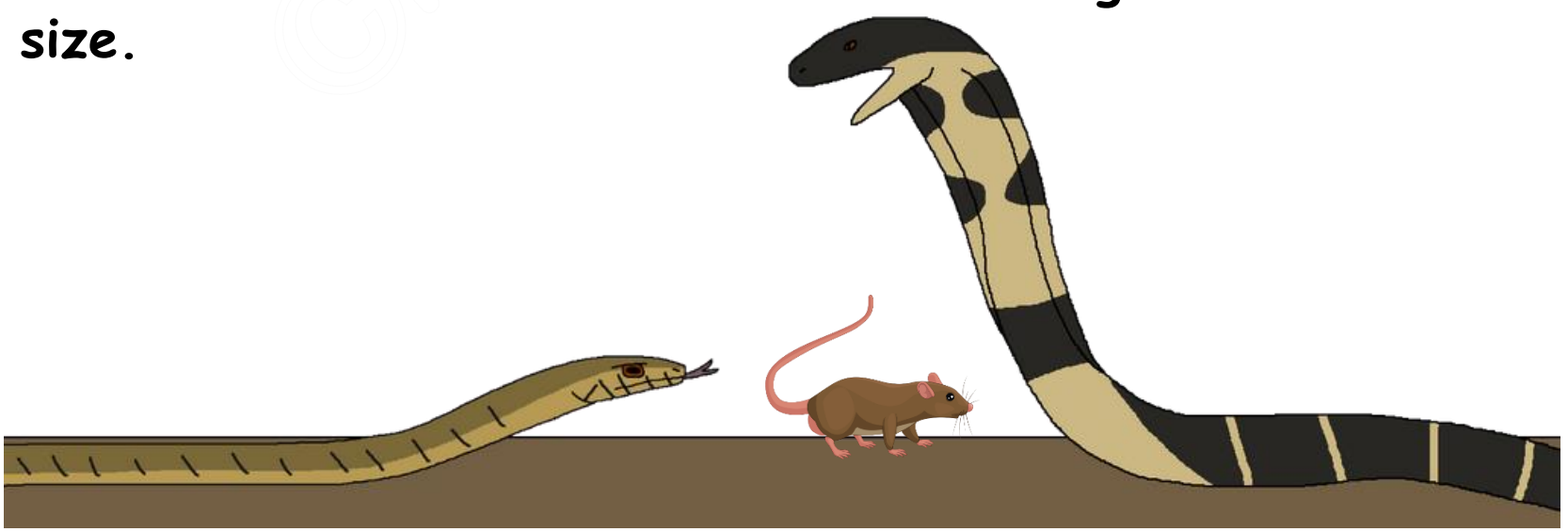
Snake Food

Food is an important factor in the evolution of the snake. We have heard that the favourite food of the snake is the mouse, sometimes the mouse also lives in the burrow, so it must have become its favourite food, and at the same time, the snake started eating lizards, frogs, insects, earthworms etc. found in and around the burrow. As some snakes did not get any food, they preferred to eat other snakes. Big snakes started killing and eating small snakes to maintain their dominance. A snake is a carnivorous animal and feeds on live prey. Each snake's food is determined by its size. Small snakes eat small insects and their eggs, medium-sized snakes eat mice, lizards, geckos, chameleons, birds, and its eggs, while large and gigantic snakes prefers to eat cats, goats, deer, sheeps, etc. Egg-eating snakes live only by eating bird eggs. This snake does not eat spoiled and fertilized eggs. It can spot the difference between fresh and rotten eggs. The mouth of snake opens up to 150° and hence the snake can swallow animals larger than its own size.



Snake Charmer

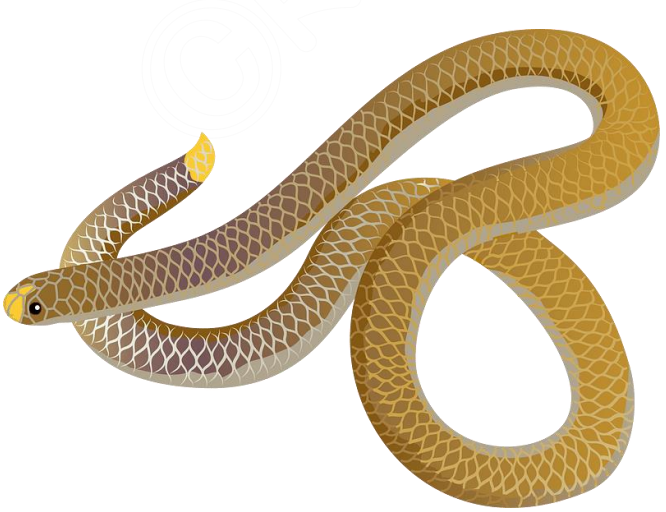
From a long period of time India is known as the land of Snakes & Snake Charmers. Snake charming is the practice of appearing to hypnotize a snake (often a cobra) by playing and waving around an instrument called a pungi (flute). A typical performance may also include handling the snakes or performing other seemingly dangerous acts, as well as other street performance.

Snakes are trapped and taken from their natural habitats. Their teeth are yanked out without any painkillers, their mouths are often sewn shut (leaving a little gap to pour water or milk down), and their venom ducts are often pierced with a hot needle, causing the glands to burst and destroying this animals' most effective defense mechanism. None of the snakes lives very long, and death comes slowly and painfully.

Although snakes are protected under WLPA 1972 act, Snake charmers have been and still are entrancing villagers into believing the superstitions & myths. Doing so nowadays can send a snake charmer behind the bars.

Brahminy Worm snake

Indotyphlops braminus



Brahminy Worm snake

Indotyphlops braminus

MARATHI NAME:-Vala sarp, Kirdu, Andhala sarp.

FAMILY:- Typhlopidea

IDENTIFICATION:- Dark Reddish Brown in colour. Thin Slender body. Tiny Eyes. Pointed tip of Tail. Often confused with worm.

LENGTH:- Average 12 to 15 cm. Maximum 30 cm.

BREEDING:- Female Lays 3 to 10 eggs.

FOOD:- Earthworms, Ants, Termites & their eggs.

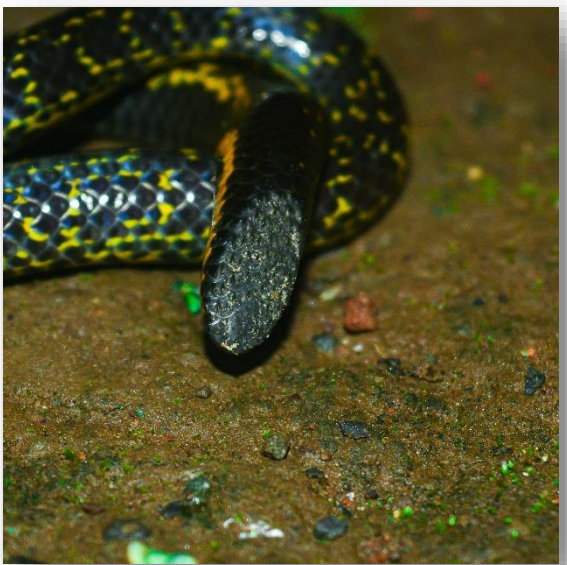
HABITAT:- Lives under soil. Found in forest as well as near human habitation.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal & Nocturnal. Likes to burrow & hide under soil. Because of very tiny eyes, these are often called Blind Snakes. Brahminy Worm Snake is capable of parthenogenesis' or virgin birth which means biological reproduction that involves the development of a female sex cell without fertilization by a male sex cell.

Shieldtail Snake

Uropeltis phipsonii



Common Shieldtail Snake

Uropeltis phipsonii

MARATHI NAME:- Khaparkhavlya.

FAMILY:- Uropeltidae.

IDENTIFICATION:- Purplish brown with yellow & black spots. Flat tail.

LENGTH:- Average 15 to 20 cm. Maximum 30 cm.

BREEDING :-gives birth to 3 to 6 young ones during monsoon.

FOOD:- Earthworms, Small insects & their eggs.

HABITAT:- Lives under soil. Mostly Found in forest. Prefers to hide under leaves in monsoon.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal & Nocturnal. Likes to burrow & hide under soil. Smooth scales allow them to freely move through mud & soily areas. When disturbed, hides its face under the body, keeping the tail on upper side using it as a Shield to protect itself from enemies.

Bhimashankar Shieldtail

Uropeltis bicatenata

Bhimashankar Shieldtail

Uropeltis bicatenata

MARATHI NAME:- Bhimashankari Khaparkhavlya.

FAMILY:- Uropeltidae

IDENTIFICATION:- Voilet brown body colour with yellow & black spots. Chain of Yellowish orange spots from face to most of the length, hence called bicatenata. Tail is Blunt.

LENGTH:- Average 15 to 25 cm. Maximum 30 cm.

BREEDING:- Gives birth to 2 to 5 young ones during monsoon.

FOOD:- Earthworms, Small insects & their eggs.

HABITAT:- Lives under soil. Found in forest mostly in monsoon.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal & Nocturnal. Likes to burrow & hide under soil like other uropeltis species. Currently this species is known only from few localities like Bhimashankar, in Pune district, Fangul Gauhan & Kalsubai from Nasik. Greater in size as compared to Uropeltis phipsonii.

Indian Rock Python

Python molurus molurus

Indian Rock Python

Python molurus molurus

MARATHI NAME:- Ajgar

FAMILY:- Pythonidae

IDENTIFICATION:- Large sized & heavy body. Pale brown body with dark blotches. Scales are smooth & shiny. Vertical pupils.

LENGTH:- Average 9 feet. Maximum 24 feet.

BREEDING:- Female Lays 30 to 80 eggs from January to march. It takes about 90 to 100 days to hatch.

FOOD:- Feeds on small animals like Rabbits, rodents, hens to large animals like wild boar, goat, sheep, deer depending on the size of Python.

HABITAT:- Found in a variety of habitats including rainforests, river valleys, woodlands, scrublands, grassy marshes, and semi rocky foothills. Mostly found near water sources

SCHEDULE:- I

CHARACTERISTICS:- Diurnal as well as nocturnal. Capable of staying under water for more than 1 hour. Hunts by constricting the prey & suffocating it. Uses Thermoreceptors in dark for hunting. Known as best climbers. One of the most protected species in Indian Wildlife.

Common Sand Boa

Eryx conicus

Common Sand Boa

Eryx conicus

MARATHI NAME:- Durkya Ghonas.

FAMILY:-Erycidae

IDENTIFICATION:- Robust & thick body. Dark Reddish Brown, grey coloured thick body with irregular blotches. Short blunt pointed tail with rough keels. Round shaped Head. Eyes have vertical pupils.

LENGTH:- Average 1.5 feet. Maximum 3.5 feet.

BREEDING:- Gives live birth to 5 to 8 young ones between july to September.

FOOD:- Rats, lizards, frogs & birds.

HABITAT:- Found in forest, Scrubland, Coastal and sandy areas. Also found near human habitation.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal & Nocturnal. Resembles baby python. Can be seen at day time while foraging and preying. Makes a robust coil to hide its head in defence. In aggressive mood it flattens whole body and throw it into open coil with head ready to strike. Unlike its normally slow behavior, it strikes in surprisingly quick.

Earth Boa/red Sand Boa

Eryx johnii

Earth Boa/red Sand Boa

Eryx johnii

MARATHI NAME:- Mandul

FAMILY:- Erycidae

IDENTIFICATION:- Dark Reddish Brown in colour. Thick body. Mouth & Tail looks very similar.

LENGTH:- Average 1.5 feet. Maximum 3.5 feet.

BREEDING :- Female gives birth to 6 to 15 young ones during August-September.

FOOD:- Rats, lizards, Squirrels, frogs & birds.

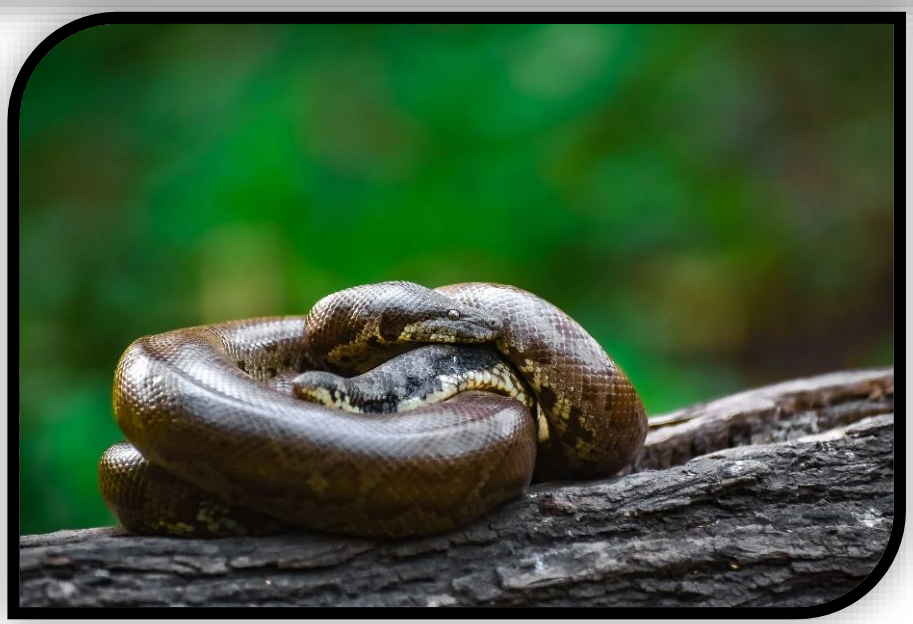
HABITAT:- Mostly found in farms fields under ground. Also found in coastal, forest and rocky & urban areas.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal as well as nocturnal. Likes to burrow & hide under soil. Can be seen at day time while foraging and preying. Spends most of the life as a burrower. people often get confused between head & tail. Because of illegal trade, smuggling, rumours & superstitions, this snake species is about to extinct in few decades.

Whitaker’s Boa

Eryx whitakeri



Whitaker's Boa

Eryx whitakeri

MARATHI NAME:- Whitekari Mandul

FAMILY:- Erycidae

IDENTIFICATION:- Dark Brown with irregular shaped large blotches of dark colour on upper body in colour.

LENGTH:- Average 2 feet. Maximum 4 feet.

BREEDING :- Females gives birth to 3 to 15 young ones during May-September.

FOOD:- Rats, lizards, frogs & birds.

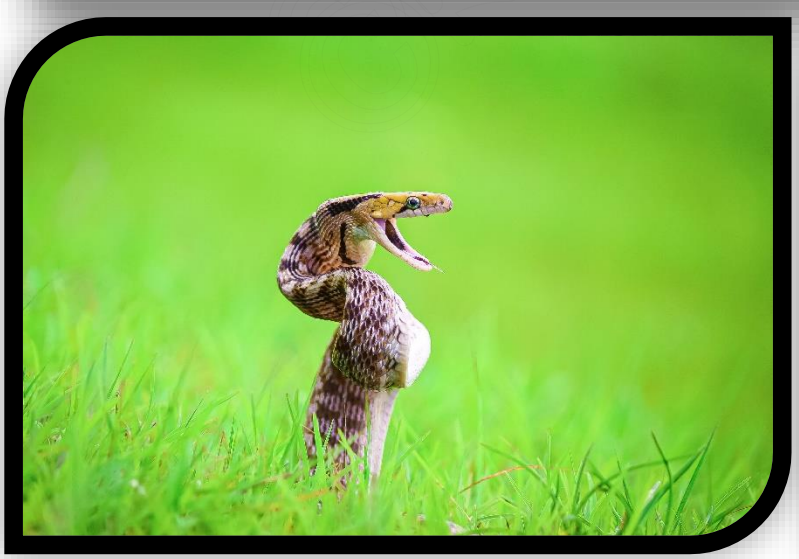
HABITAT:- Mostly found in farms fields under ground. Also found in forest.

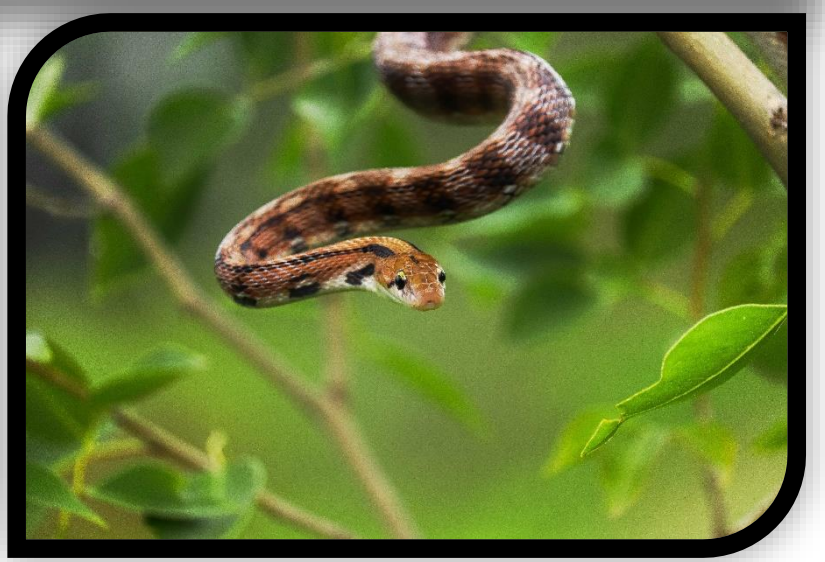
SCHEDULE:- IV

CHARACTERISTICS:- Diurnal as well as nocturnal. Non aggressive & Shy. rarely bites. Can be seen at day time while foraging and preying. Endemic to western ghats. Was named in honour of well known Herpetologist Romulus Whitaker.

Common Trinket snake

Coelognathus helena





Common Trinket snake

Coelognathus helena

MARATHI NAME:- Taskar sarp, Chor saap.

FAMILY:- Colubridae

IDENTIFICATION:- Slender body with light brown colour. Alternating grey & dark brown bands on half of the body resembling an ornament named trinket. Round pupil. Black streak behind eyes.

LENGTH:- Average 3 feet. Maximum 5.5 feet.

BREEDING :- Females Lays 7 to 15 eggs during march to may. It takes about 35 to 70 days to hatch.

FOOD:- Rats, frogs, rodents, Mice, Lizards, Small birds.

HABITAT:- Likes to live in urban developing areas. Also found in forest, scrubland & villages.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal as well as Nocturnal. If provoked strikes repeatedly with wide mouth open. The Most common snake found in urban areas. Arboreal hence Great climber. Sharp inward pointing teeth. Although the mating period is specific but the juveniles of common Trinket Snake are recorded all the year as per our record.

Montane Trinket snake

Coelognathus helena monticollaris

Montane Trinket snake

Coelognathus helena monticollaris

MARATHI NAME:- Pahadi Taskar sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Slender body with light brown colour. Alternating Dark brown or grey bands on half of the body And stripes on the remaining body. Round pupil.

LENGTH:- Average 3 feet. Maximum 5 feet.

BREEDING :- Female lays 5 to 15 eggs during march to May. It takes about 35 to 70 days to hatch.

FOOD:- Rats, frogs, rodents, Squirrels, Mice, Lizards, Small birds.

HABITAT:- Likes to live in dense mountainous forest as well as scrublands & villages.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal as well as Nocturnal. If provoked strikes repeatedly with wide mouth open. Arboreal hence Great climber. More aggressive as compared to Common trinket snake.

File snake

Acrochordus granulatus

File snake

Acrochordus granulatus

MARATHI NAME:- Ekeri.

FAMILY:- Acrochordidae

IDENTIFICATION:- Dark gray body with white horizontal stripes from head to tail. Short Mouth and warty scales. Tail flattened.

LENGTH:- Average 3 feet maximum 4 feet.

BREEDING :- A female gives birth to 5 to 10 young ones.

FOOD:- As this snake lives in the sea, it mainly feeds on small fishes.

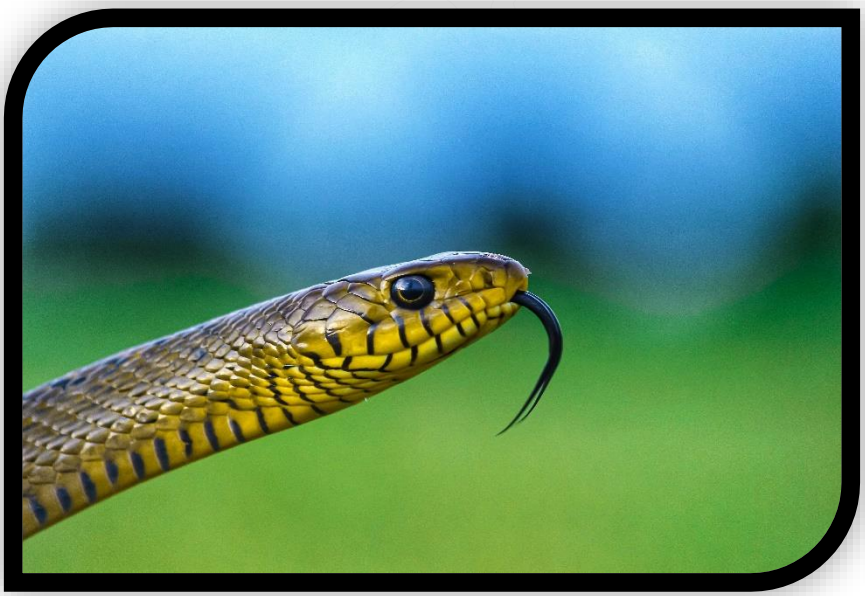
HABITAT:- Mainly in estuaries, sometimes on beaches.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal. Often Caught in fishermen's nets. Its scales are rough. The flattened tail makes it very useful for swimming in water. It cannot crawl on land. This snake looks like a sea snake but is non-venomous. Since the color of the snake and the sand near the water is the same, this snake cannot be seen quickly. Compared to other snakes, the amount of blood in this snake's body is double and the amount of red blood cells is also high. Because of this, this snake can stay under water for 2 hours using the oxygen in the blood.

Indian Rat snake

Ptyas mucosa.



Indian Rat snake

Ptyas mucosa.

MARATHI NAME:- Dhaman.

FAMILY:- Colubridae

IDENTIFICATION:- Colour brown, gray, yellow, or black. Reticulate pattern fades from tail to half of body. Black vertical lines on lip scales. Eyes are large with round pupils.

LENGTH:- Average 6 feet. maximum 11.5 feet.

BREEDING:- Between March and May, the female lays 10 to 15 eggs which hatches after 2 to 3 months.

FOOD:- Main food is rodents, frogs, lizards, small birds and rarely snakes.

HABITAT:- Rat nests, granaries, fields, urban settlements, grasslands, forests, coastal areas, marshy areas.

SCHEDULE:- II

CHARACTERISTICS :- This snake is agile and good at catching mice. It chases mice into burrows and traps them. Being cobra-like in appearance, it is considered venomous. Due to its length and agility, it has a high capacity to eat mice and thus controls the rodents that destroy agriculture. That is why it is called the farmer's true friend. As it is Found near human settlements, many misconceptions have spread about this snake. It resembles a typical rope in appearance & hence called Dhaman in Marathi.

Banded Racer snake

Platyceps plinii

Banded Racer snake

Platyceps plinii

MARATHI NAME:- Dhulnagin.

FAMILY:- Colubridae

IDENTIFICATION:- Colour pale or dark brown. Head tapering. Soft and smooth scales. Tail long and tapering. juveniles have white horizontal stripes on body which fade with age. Pupils round.

LENGTH:- Average 3 feet, maximum 5.5 feet.

BREEDING:- Between February and May the female lays 8 to 18 eggs which hatch after 2 to 3 months

FOOD:- Rats, frogs, frogs etc.

HABITAT:- Rat dens, stone and brick piles and near urban settlements.

SCHEDULE:- IV

CHARACTERISTICS:- Very agile. Because of its agility it is called Racer in English. Since the snake is very similar to Cobra it is considered venomous and is killed. This snake can move very quickly even on a tree. When provoked, it flattens its head resembling a cobra and strikes quickly.

Slender/Gunther's Racer

Platyceps gracilis

Slender/Gunther's Racer

Platyceps gracilis

MARATHI NAME:- Chitrang naikul.

FAMILY:- Colubridae

IDENTIFICATION:- Gray-brown body with black border and yellow scales. These scales become darker towards the head and lighter towards the tail. 'V' shaped mark on the head. Eyes are large and pupils are round. Tail tapering.

LENGTH:- Average 1.5 feet, maximum 3.5 feet.

REPRODUCTION:- The female lays 5 to 7 eggs between March and May. After 45 to 60 days the eggs hatch.

FOOD:- Geckos, lizards and small insects.

HABITAT:- Wilderness. Sometimes found in urban settlements also.

SCHEDULE:- IV

CHARACTERISTICS:- Mainly diurnal. But also comes out at night for hunting. This snake is calm natured and when handled, it twitches at first but calms down after some time. This Snake is shy & looks very beautiful.

Banded Kukri snake

Oligodon arnensis

Banded Kukri snake

Oligodon arnensis

MARATHI NAME:- Patteri Kukri.

FAMILY:- Colubridae

IDENTIFICATION:- Body colour gray or reddish brown. Black or dark brown stripes from head to tail. Fading towards tail. Marking on head like English letter 'V' shape.

LENGTH:- Average 2 feet. Maximum 3 feet.

BREEDING:- Female lays eggs between December to January which hatch after 60 to 70 days.

FOOD:- Small insects, rodents, small lizards & their eggs.

HABITAT:- In stone and brick piles, in mud houses, near human settlements.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal and nocturnal. It has sharp teeth like kukri, a knife of Nepali people, hence the name Kukri. Although this snake is calm, its juveniles are very colourful and often attack if provoked. It looks like a venomous banded krait. So it is killed as it is considered venomous. Tillack's kukri from Solapur district of Maharashtra was recognized as common kukri but a group of researchers redefined it recently. The bands on the body of Tillack's kukri are broader as compared to common kukri. Although the mating period is specific but the juveniles of Kukri Snake are recorded all the year as per our record.

Russell’s Kukri snake

Oligodon taeniolatus

Russell's Kukri snake

Oligodon taeniolatus

MARATHI NAME:- Rasel Kukri.

FAMILY:- Colubridae

DESCRIPTION:- Brown body with dark brown spots. The border of the spots is white. These spots disappear towards the tail.

LENGTH:- Average 1 ft. Maximum 2 ft.

BREEDING:-The female lays 6 to 10 eggs between April and May. After 50 to 70 days the eggs hatch.

FOOD:- Small insects, caterpillars and baby lizards and eggs etc.

HABITAT:- It is found more in the city boundary section. It is also found in the city and village.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal and nocturnal. It is calm and rarely bites. It is found in different types of patterns. Some are pale in colour while some are dark and the spots on it may also come in dark colour.

Bronzeback tree Snake

Dendrelaphis tristis

Bronzeback tree Snake

Dendrelaphis tristis

MARATHI NAME:- Ruka Sarp, Zad Sarp.

FAMILY:- Colubridae

IDENTIFICATION:- A brown streak from head to tail. Abdomen yellowish, bluish or pale green. Upper lip colour pale brown. Round pupils with large golden eyes.

LENGTH:- Average 3 ft. Maximum 5.5 ft.

BREEDING:- The female lays 5 to 8 eggs between March and April.

FOOD:- frogs, lizards,Geckos, small birds etc.

HABITAT:- Lives mainly on trees. Moist forests, coastal areas and other dry scrub areas.

Schedule:- IV

CHARACTERISTICS:- Diurnal. Mainly forages on trees, very agile and fast. When provoked, it flattens the neck and displays the blue colour hidden under the scales. The body is slender and elongated. The tail is tapered, so it uses the tail to hang on the branch and catch the prey. It hides in tree hole. Its back colour is like bronze metal & it likes to wander through trees hence it is called bronze back tree snake.

Giri's Bronzeback Tree Snake

Dendrelaphis girii

Giri's Bronzeback Tree Snake

Dendrelaphis girii

MARATHI NAME:- Giri ruka sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Patternless golden brown glossy in colour on top with yellowish white lip scales. A thick streak runs through eyes & ends with the head. Eyes lagre with round pupil.

LENGTH:- Average 2.5 ft. Maximum 4 ft.

BREEDING:- The female lays 5 to 8 eggs between March and April.

FOOD:- frogs, lizards, small birds etc.

HABITAT:- Lives mainly on trees. Moist forests, coastal areas and other dry scrub areas. Endemic to western ghats.

Schedule:- IV

CHARACTERISTICS:- Diurnal. Mainly forages through trees, very agile and fast. The body is slender and elongated. The tail is tapered, so it uses the tail to hang on the branch and catch the prey. It hides in tree hole. It is named in the honour of India's well known herpetologist Dr Varad Giri.

Common Wolf Snake

Lycodon aulicus.

Common Wolf Snake

Lycodon aulicus.

MARATHI NAME:- Kavdya sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Body reddish brown. Broad whitish yellowish band near neck with a notch in between. White yellowish band starting from head and fading towards tail. Head flat and eyes large.

LENGTH:- Average 1 ft. Maximum 2.5 ft.

REPRODUCTION:- Between March and May the female lays 5 to 12 eggs. Eggs hatch after 60 to 70 days.

FOOD:- Lizards, Geckos & their eggs.

HABITAT:- In search of lizards near human habitation, unused old houses, in piles of stones and mud.

SCHEDULE:- IV

CHARACTERISTICS:- Nocturnal but also found during the day. Lizard being a favourite food, it also climbs steep vertical walls. Since this snake looks like a Venomous Krait, it is killed as it is considered Venomous. This snake is very short tempered & bites hard 10 to 12 times if handled. It does not calm down quickly and bites repeatedly. Although the mating period is specific but the juveniles of common Wolf Snake are recorded all the year as per our record.

Yellow spotted Wolf Snake

Lycodon flavomaculatus

Yellow spotted Wolf Snake

Lycodon flavomaculatus

MARATHI NAME:- Pivalya thipakyancha kavdya sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Entire black body with horizontal stripes of yellow spots. White spots on belly. Eyes black and head colour is also black so eyes are not visible. Lower part of lips white.

LENGTH:- Average 1 ft. Maximum 1.5 ft.

REPRODUCTION:- The female lays 2 to 4 eggs during June-July.

FOOD:- lizards, Geckos and sometimes insects.

HABITAT:- Found in urban and rural areas as well. Close to home in search of Lizards

SCHEDULE:- IV

CHARACTERISTICS:- Nocturnal. Quiet and shy. Compared to Common Wolf snake, it is rarely seen as its number is very less. Because of its calm nature, it rarely bites.

Barred Wolf Snake

Lycodon striatus

Barred Wolf Snake

Lycodon striatus

MARATHI NAME:- Patteri Kavdya.

FAMILY:- Colubridae

IDENTIFICATION:- Full black body with white-yellow horizontal stripes. Belly white. Eyes are black hence not easily visible.

LENGTH:- Average 1 ft. Maximum 1.5 ft.

BREEDING:- The female lays 2 to 4 eggs between July-August.

FOOD:- lizards, Geckos and sometimes insects.

HABITAT:- Rural area where lizards live.

SCHEDULE:- IV

CHARACTERISTICS:- As the number of this snake is very less compared to the snake, it is rarely seen. Due to its calm nature, it rarely bites.

Travancore Wolf Snake

Lycodon travancoricus

Travancore Wolf Snake

Lycodon travancoricus

MARATHI NAME:- Travancore Kavdya sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Body black or dark brown in colour. White or yellow dotted stripes on it. Eyes all black and medium size. Smooth scales.

LENGTH:- Average 1.5 ft. Maximum 2.5 ft.

BREEDING:- Female lays 3 to 7 eggs.

FOOD:- Mainly feeds on Lizards & its eggs found in forest.

HABITAT:- In forests of Eastern and Western Ghats.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. It comes out at night in search of prey. This snake was first recorded in Travancore in Kerala, hence the name Travancore Wolf Snake. This snake is found in the forests of the Western Ghats of Maharashtra.

Dumeril's Black Headed Snake

Sibynophis subpunctatus

Dumeril's Black Headed Snake

Sibynophis subpunctatus

MARATHI NAME:- Kaaltondya sarp, krishnashirsha sarp.

FAMILY:- Sibynophiidae.

IDENTIFICATION:- Mouth and head black. Two brown spots on center of head. White-brown stripe on neck. Reddish brown body with small black spots from head to tail.

LENGTH:- Average 1 ft. Maximum 1.5 ft.

BREEDING:- Female lays 3 to 5 eggs.

FOOD:- juvenile lizards, small insects, earthworms etc.

HABITAT:- In thickets, under piles of wood and stones.

SCHEDULE:- IV

CHARACTERISTICS:-Diurnal and nocturnal. Because of the black face, this snake is called Kalatondya meaning black headed in Marathi. It is also known as Krishnashirsha. The body is slim and smaller than little finger of human. Many times this snake is mistaken as venomous coral Snake. This snake is very agile & active. The difference between the black headed & coral snake can be noticed only after a close inspection or observation.

Checkered Keelback/Water Snake

Fowlea piscator

Checkered Keelback/Water Snake

Fowlea piscator

MARATHI NAME:- Paan Divad, Virula.

FAMILY:- Natricidae

IDENTIFICATION:- Red, black- gray, yellow or gray scales with white or yellow checkerboard pattern on each side. Eyes large and round pupils. Two black diagonal lines behind the eyes.

LENGTH:- Average 2 ft. Maximum 5.5 ft.

BREEDING:- The female lays 40 to 70 eggs between November and December.

FOOD:- Fish, Frog etc.

HABITAT:- Rivers, lakes, streams, ponds, sewers, drains etc. in watery places.

SCHEDULE:- II

CHARACTERISTICS:- Diurnal and nocturnal. Prefers to live mainly in or near water. This snake is highly aggressive and if handled wrongly, it turns around and breaks its own tail to get rid of it. Sometimes it emits a dirty-smelling discharge. This snake is called Virula in rural areas of maharashtra. It is carried along with the flow of water during monsoons.

Aquatic Rhabdops snake

Rhabdops aquaticus

Aquatic Rhabdops snake

Rhabdops aquaticus

MARATHI NAME:- Jaliya vansarp.

FAMILY:- Natricidae

IDENTIFICATION:- Olive green colour body with black dots from from head to tail. Belly side yellowish white. Smooth scales.

LENGTH:- Average 2 feet. Maximum 3 feet.

BREEDING:- Female Lays 3 to 5 eggs.

FOOD:- Fish, frog, worms.

HABITAT:- Usually found near water bodies of evergreen & Semi-evergreen forest. Hides in wet soil under rocks.

SCHEDULE:- IV

CHARACTERISTICS:- Nocturnal but also seen during daytime while hunting. This snake is endemic to the Western Ghats. Found in southern parts of western ghats of Maharashtra. For decades this snake was mistakenly identified as Olive Forest snake.

Striped Keelback

Amphiesma stolatum

Striped Keelback

Amphiesma stolatum

MARATHI NAME:- Naneti.

FAMILY:-Natricidae

IDENTIFICATION:- Body colour brown-red. Head colour olive brown. Yellow stripes on both sides from head to tail. Black or dark brown horizontal stripes from neck to half of tail. Eyes are large and have round pupils. Scale coarse.

LENGTH:- Average 2 ft. Maximum 2.5 ft.

BREEDING:- During mating period 7 to 8 males follow the female. The female lays 10 to 25 eggs.

FOOD:- frogs, Geckos, lizards etc.

HABITAT:- Lives in paddy fields, grasslands, water puddles and other wetlands.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal. When provoked, this calm snake displays the blue and red colour hidden behind the neck. Along with wetlands, this snake is found in gardens and grassy areas in villages. There is a misconception that if one snake is killed, many snakes come to that place to take revenge.

Beddome's Keelback

Amphiesma beddomei

Beddome's Keelback

Amphiesma beddomei

MARATHI NAME:- Lal Dokyachi Naneti.

FAMILY:- Colubridae

IDENTIFICATION:- Brown or pale brown body with horizontal black-white stripes from head to half. Eyes large. Pupils round. Colour of upper lip yellowish white.

LENGTH:- Average 1.5 feet. 2.5 feet max.

BREEDING:- The female lays 5 to 9 eggs between March and April.

FOOD:- frogs, small lizards etc.

HABITAT:- Forests, wetlands and thickets.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal. Colour on the body makes it camouflage in with the foliage very easily. Recorded to be found in dense forests like Amboli.

Green Keelback/Grass snake

Rhabdophis plumbicolor

Green Keelback/Grass snake

Rhabdophis plumbicolor

MARATHI NAME:- Gavatya Sarp.

FAMILY:- Natricidae

IDENTIFICATION:- Whole body green like grass. Stripes of black dots near the neck. Scales coarse. Eyes large and pupils round. Juveniles have black bands on body which over time fades.

LENGTH :- Average 2 feet. Maximum 3.5 feet.

BREEDING:- The female lays 10 to 15 eggs between March and June.

FOOD:- frogs, lizards, Geckos etc.

HABITAT:- Mainly found in green grassy areas. Dense settlements, gardens and forests.

SCHEDULE :- IV

CHARACTERISTICS :- Nocturnal but also seen during the day. This snake likes to live in grass, hence it is called grass snake. This snake has fang like structure but it is not venomous snakes. It sometimes sits coiled like a cobra with its neck inflated like a hood. So it resembles a cobra. Being very Shy & calm natured, it rarely bites.

Olive Keelback

Atretium schistosum

Olive Keelback

Atretium schistosum

MARATHI NAME:- Shevali Paandivad.

FAMILY :- Natricidae

IDENTIFICATION:- Green moss or dark moss colour. Abdominal part yellowish, light brown or orange. Eyes medium with small round pupils.

LENGTH:- Average 1.5 ft. Maximum 3.5 ft.

BREEDING:- Female lays 15 to 25 eggs.

FOOD:- Fish, Frog etc.

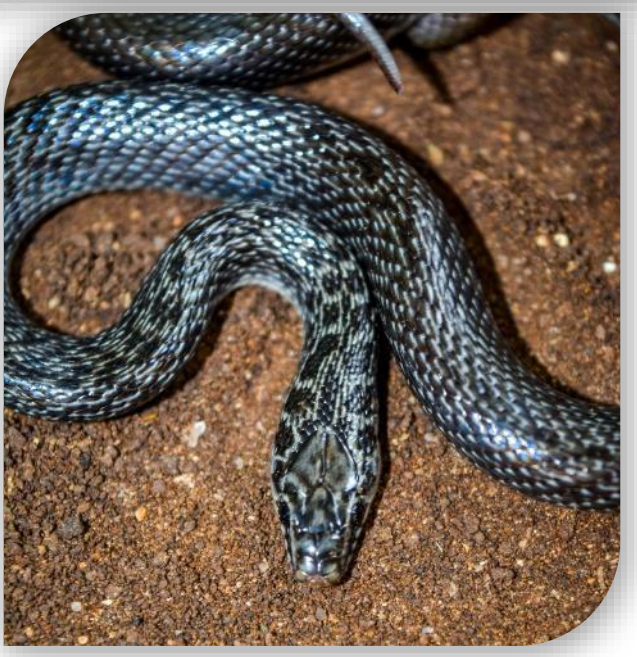
HABITAT:- Prefers to live in ponds, rivers and green grass.

SCHEDULE:- II

CHARACTERISTICS :- This snake is called Olive Keelback because its colour is similar to olive fruit. Although this snake has a calm nature, it attacks by flattening its neck. It lives in water and eats mosquito eggs, which controls the deadly diseases caused by mosquitoes.

Indian smooth snake

Wallophis brachyura



Indian smooth snake

Wallophis brachyura

MARATHI NAME:- Mrudukaay Sarp.

FAMILY:- Colubridae

IDENTIFICATION :- Colour brownish black or yellowish with white yellowish spots. Scales are very soft.

LENGTH:- Average 1 ft. Maximum 1.5 ft.

BREEDING :- Female lays 5 to 6 eggs.

FOOD:- Insects, Lizards etc.

HABITAT:- Mulch, trees and bushes, sometimes in abandoned houses.

SCHEDULE:- IV

FEATURES:- The scales are very soft and smooth. Mridu means soft and Kaya means body. Hence the name of this snake is Mridukaya. This snake is very beautiful. It rarely bites because of its calm nature. This snake, which lives in dense forests, is often found near human settlements, but it does not seem to have been adequately studied.

Glossy Marsh Snake

Gerarda prevostiana

Glossy Marsh Snake

Gerarda prevostiana

MARATHI NAME:- Zilan Sarp.

FAMILY:- Homalopsidae

IDENTIFICATION:- Grey, black shiny in colour. Head and neck similar. Tail dark. Scales soft. Belly yellowish white. Scales of lip looks like tooth structure on lower side of upper lip.

LENGTH:- Average 1 ft. Maximum 1.5 ft.

BREEDING :- Female gives birth to 3 to 5 young ones.

FOOD:- Aquatic food like small fishes, soft shelled crabs, snails etc.

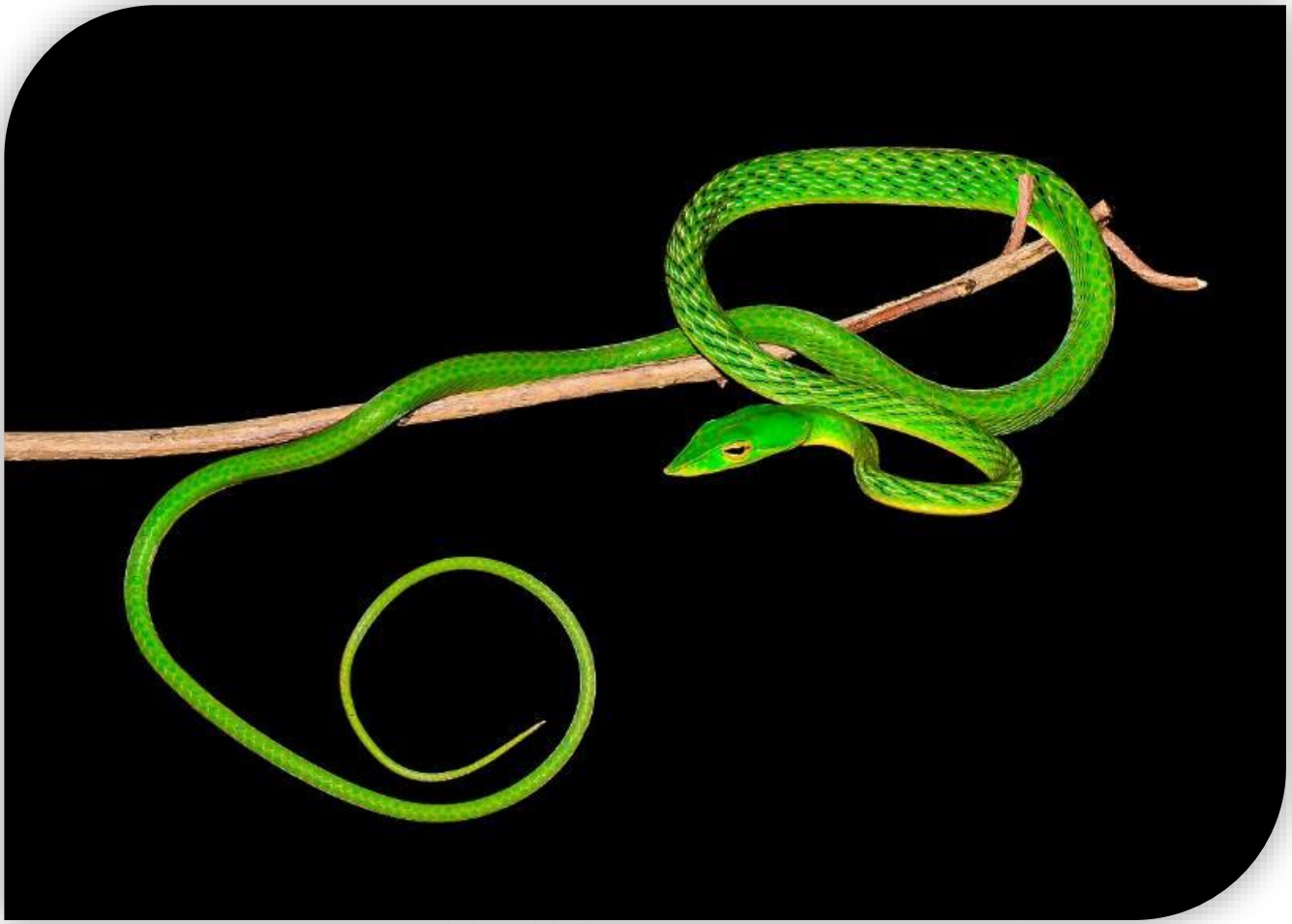
HABITAT:- In creeks and adjacent mangrove forests, near river banks.

SCHEDULE:- IV

CHARACTERISTICS:- Nocturnal. Rarely seen during the day. Lives near river mouths, mangrove forests, creeks, so it is rarely found in human habitation. It is also found near burrows of soft-shelled crabs. Being quiet and shy in nature, it hides its mouth under its body when it is in danger. It because of its colour that matches the sand it becomes easy for it to catch fish and other prey easily. Although it is Semi Venomous there is no danger to human life from it.

Green Vine Snake

Ahaetulla borealis



Green Vine Snake

Ahaetulla borealis

MARATHI NAME:- Harantol.

FAMILY:- Colubridae

IDENTIFICATION:- Colour green. White yellow stripe on both sides of the body. The head is tapered and the nose is pointed. The eyes are golden and the pupil is horizontal. Due to the tapered head, it has binocular vision.

LENGTH:- Average 3 feet and maximum 6 feet.

BREEDING:- The female gives birth to 10 to 25 juveniles between July and August.

FOOD:- lizards, frogs, small birds, eggs of birds.

HABITAT:- On forest trees, rarely along river banks.

SCHEDULE:- IV

CHARACTERISTICS:- Diurnal as well as Nocturnal. If handled, it flattens its neck and shows black and white stripes on its body. It is also called vine snake because its body is slender like a vine. Because of its pointed, narrow mouth, it becomes easy to navigate through dense trees. Due to its tapered head, it has 330° vision. This is the only snake in India that has Horizontal pupil.

Laudankia/Brown Vine Snake

Ahaetulla laudankia

Laudankia/Brown Vine Snake

Ahaetulla laudankia

MARATHI NAME :- Tapkiri Harantol

FAMILY:- Colubridae

DESCRIPTION:- Colour of the body is brown or dark greyish brown. Upper head scales are speckled with black spots. It has a long and flat mouth compared to the green vine snake. Slender body. Long and tapering tail. Horizontal Pupils.

LENGTH:- Average 4 ft. Maximum 5.5 ft

BREEDING:- Female gives birth to 5 to 10 young ones between August-September.

FOOD:- Rats, tree frogs, lizards, small birds etc.

HABITAT:- In the forests of the Western Ghats on trees and shrubs

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal as well as nocturnal. There are many similarities between the Green & brown vine Snakes. But these two differ in colour. Because of its colour its not easily visible and can't be spot immediately. It gets its name from a bottle gourd stem naming laudankia in odia language.

Condanarus Sand Snake

Psammophis condanarus

Condanarus Sand Snake

Psammophis condanarus

MARATHI NAME:- Patteri Reti Sarp.

FAMILY :- Psammophiidae

IDENTIFICATION:- Light brown body with five parallel lines. Lines between are dark brown. Lateral lines are light brown. Lateral lines are dark brown.

LENGTH:- Average 2 ft. Maximum 3.5 ft.

BREEDING:- The female lays eggs.

FOOD:- frogs, lizards, geckos etc.

HABITAT:- Rocky terrain and scrub forests.

SCHEDULE :- IV

CHARACTERISTICS :- Diurnal. This snake is agile and can climb trees very well. While hunting, it chases its prey by raising its head. Although the name sand snake, its never found in sand. Its venom is harmful for its prey but there is no danger to human life from it if bitten.

Stout sand snake

Psammophis longifrons

Stout sand snake

Psammophis longifrons

MARATHI NAME:- Jaad Reti Sarp.

FAMILY:- Psammophiidae

IDENTIFICATION:- The body is brown, neck is gray. The edge of the scales is black. The belly is yellowish white. The scales are smooth. Eyes are large and the pupils are round.

LENGTH:- Average 3 feet. Maximum 4 feet.

BREEDING :- Female lays 7 to 8 eggs.

FOOD:- lizards, geckos, rarely rats.

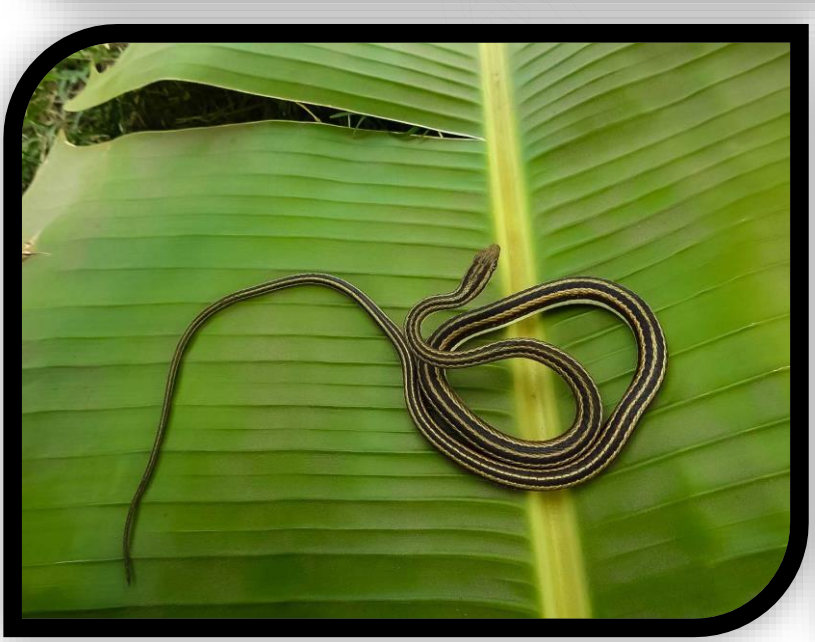
HABITAT:- On ground as well as on trees.

SCHEDULE :- IV

CHARACTERISTICS :- Diurnal. Although somewhat irritable in nature, it does not usually bite. It is never found in sand. It looks like Rat Snake. Although it is semi-venomous, its bite does not kill a person.

Leith’s Sand Snake

Psammophis leithii



Leith's Sand Snake

Psammophis leithii

MARATHI NAME:- leithicha Reti Sarp.

FAMILY:- Psammophiidae

IDENTIFICATION :- Yellow color body with four dark brown lines from head to tail. Head slightly larger than neck. Long dark mark on head. Mouth long with large eyes and round pupils. Smooth scales. Tail long.

LENGTH:- Average 2.5 ft. Maximum 3.5 ft.

BREEDING :- The female lays 5 to 11 eggs between March and June.

FOOD:- lizards, small birds etc.

HABITAT:- Wetlands, deserts, meadows etc.

Schedule:- IV

CHARACTERISTICS :- Duirnal. Very active. This snake that lives on the ground is also found on trees. When moving, it raises its neck to get field vision. It looks like striped sand snake. Its venom is not fatal to humans.

Common Cat Snake

Boiga trigonata

Common Cat Snake

Boiga trigonata

MARATHI NAME:- Manjrya sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Pale brown body with black and white wavy markings. Belly yellowish brown with small spots. White markings on the head looks like the letter 'Y'. Long slender body. White lines above behind eyes. Cat-like eyes.

LENGTH:- Average 2.5 ft. Maximum 4.5 ft.

BREEDING:- The female lays 5 to 10 eggs between March and May.

FOOD:- Small lizards, birds etc.

HABITAT:- City, village, forest, paddy fields, rocky terrain, thickets.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal but also found during the day. When disturbed, it coils the body & attacks like a spring with its mouth open. It gives warning by shaking its tail. Mainly found on trees. It uses its long tapering tail to hang on branch and catch its prey. Although its venom is harmful for its prey, it is non lethal to human.

Beddome’s Cat Snake

Boiga beddomei

Beddome's Cat Snake

Boiga beddomei

MARATHI NAME:- Bedomcha Manjrya sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Brown or pale gray body. Black wavy pattern on body. Black dark brown spots on head. Oblique line behind head. Abdomen yellowish white. Black spots on it. Body erect and flat. Head larger than neck and slightly triangular, fine tail. Scales are soft.

LENGTH:- Average 2.5 ft. Maximum 4 ft.

BREEDING:- The female lays 5 to 8 eggs during March-April.

FOOD:- feeds on lizards, frogs etc.

HABITAT:- Mostly found on tall trees in dense forests.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. Due to the vertical pupils in the eyes, it is active more at night & prefers to hunt at night. It uses its slender body and fine tail to catch the prey from the trees. Although its venom is harmful for its prey, there is no danger to human life from it.

Forsten's Cat Snake

Boiga forsteni

Forsten's Cat Snake

Boiga forsteni

MARATHI NAME:- Forsten cha Manjrya sarp.

FAMILY:- Colubridae

IDENTIFICATION :- Dorsal body colours & patterns are variable in this species which vary from combination of gray, brown, reddish, ground colour with alternate black & yellow white zigzag markings or cross bands on anterior half of body zigzag brown or grey. Black line behind the eyes. Eyes are large and pupils are raised in the eyes. Head is large and triangular.

LENGTH :- Average 5.5 ft. Maximum 7.5 ft.

BREEDING :- Female lays 5 to 12 eggs between March and May.

FOOD:- Lizards on trees, frogs, small birds.

HABITAT:- Branches of trees in forest & fallen dry leaves on the ground.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. Appears on the ground during the day in search of food. Prefers to catch food from trees at night. The largest and longest snake of the cat species found in Maharashtra.

Ornate Flying snake

Chrysopelea ornata

Ornate Flying snake

Chrysopelea ornata

MARATHI NAME:- Udata Sonn sarp.

FAMILY:- Colubridae

IDENTIFICATION:- Body colour yellow, pale yellow, greenish yellow. Black marks and orange spots on body. Eyes large and round pupil. Body tapering, head tapering. Scales soft.

LENGTH:- Average 3.5 ft. Maximum 6 ft.

BREEDING:- The female lays 6 to 12 eggs between June and July.

FOOD:- lizards, frogs and small birds.

HABITAT:- Lives mainly on forest trees.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal. This snake mainly lives on trees can float from one tree to another. That is why it is called flying snake. It does not fly in the air but floats. While moving from one tree to another tree, it flattens its body and floats like a parachute. Can float from one tree to another up to 100 meters in the air.

Indian Egg Eater snake

Boiga westermanni

Indian Egg Eater snake

Boiga westermanni

MARATHI NAME:- Bhartiya Andi khau sarp.

FAMILY:-Colubridae (dasypeltidae)

IDENTIFICATION:- Body colour brown. Front part of body dark brown with pale yellowish spots. Belly yellowish with black spots on it. Eyes large with vertical pupil eyes. Yellow line from neck to tail.

LENGTH:- Average 1.5 ft. Maximum 2.5 ft.

BREEDING:- Female lays 5 to 8 eggs.

FOOD:- Mainly eggs of small birds, lizards etc.

HABITAT:- On ground and trees.

SCHEDULE:- I

CHARACTERISTICS :- Nocturnal but also seen during day. This snake was supposed to be extinct but it was recorded in Amravati in 2005 and later in Wardha, Yavatmal, Jalgaon etc. This snake looks a bit like trinket snake. Its favourite food is eggs of small birds and when the egg is swallowed it is cracked by its spines. It swallows the liquid protein. The remaining egg shell is thrown out through the mouth. Since this snake is very rare it is highly protected under Wildlife protection act.

Dog Faced Water snake

Cerberus rynchops

Dog Faced Water snake

Cerberus rynchops

MARATHI NAME:- Shwanmukhi sarp.

FAMILY:- Homalopsidae

Identification:-Dark gray body. Black spots on dorsal body. Belly scales white with dark brown spots on it. Head brown with dark streaks on side of head. Eyes small and on top of head.

LENGTH:- Average 2 ft. Maximum 4.5 ft

BREEDING:- Female gives birth to 10 to 30 young ones between February and May.

FOOD:- fishes, frogs crabs etc.

HABITAT:- In crab nests near the beach.

Schedule:- II

CHARACTERISTICS :- Nocturnal. As it can swim well in water, it chases fish and crabs and catches them. The body is thick and sea snake-like, so it is killed because it is thought to be venomous. Because the mouth of this snake looks like a dog, it is called "Swanmukhi sarp" in Marathi. This endangered snake is listed in Schedule II under the Wildlife Act.

Indian Spectacled Cobra

Naja naja

Indian Spectacled Cobra

Naja naja

MARATHI NAME:- Naag.

FAMILY:- Elapidae

Identification:- Body colour is brown, grey, yellowish brown. Head is large. Eyes are large and pupils are round. Backside of the hood has various markings. The most common is Spectacle like design. Two large black spots are visible on the front side.

LENGTH:- Average 3.5 ft. Maximum 7 ft.

BREEDING:-The female lays 10 to 15 eggs between April and May. After about 50 to 70 days the eggs hatch in Monsoon from mid june to September.

FOOD:- Rats, frogs, lizards and other snakes.

HABITAT:- Found in rat borrows, piles of stones and bricks, forests, paddy fields and abandoned houses, cities and rural areas. Most Common species of snakes.

SCHEDULE:- II

FEATURES :- Diurnal and nocturnal. When disturbed, raises its hood upto one-third of its body. Looks scary and beautiful than other snakes because of its hood. There are two big spots/spectacles on the snake's hood like eyes, so the enemy attacking from behind often gets confused & runs away. As compared to other venomous snakes, the bite of a snake causes death sooner. As this snake is found in human habitations, there are many misconceptions about it and this is the reason why this snake is mercilessly killed. Because of various threats, all cobra found in India have been included in Schedule II under the Wildlife Act.

The cobra, like other snakes, has numerous vertebrae. Unlike in most other species, the slender, long ribs on the sides of the vertebrae of its neck are erectile. When the snake spreads its hood, these ribs in the region of the neck are drawn forward by muscular action. The skin gets stretched and the hood is formed. When the skin gets stretched, the scales are drawn widely apart and this conspicuously brings out the patterns which are otherwise tucked among the scales and not easily noticed

SYMPTOMS OF COBRA BITE :-

Snake venom affects the human nervous system.

1) Pain, swelling and burning sensation at the bite site starts within 30 mins. Limbs become weak.
2) Eye lids start drooping & becomes hard to keep them open. Sometimes double images start to appear.
3) Frequent vomiting.
4) The tongue becomes hard and saliva starts flowing from the mouth.
5) Sweat breaks out, breathing becomes difficult.
6) Heart rate increases.
7) Causes death due to lack of treatment with muscle paralysis.

King Cobra

King Cobra

Ophiophagus hannah

MARATHI NAME:- Naagraj.

FAMILY:- Elapidae

IDENTIFICATION:- Body colour yellowish mossy, grayish green. Yellowish white horizontal stripes on it. Side of belly pale brown. Body long and thick. Eye size medium and pupil round. Hood more erect than other cobras.

LENGTH:- Average 10 ft. Maximum 18 ft.

BREEDING:- Female lays 15 to 50 eggs between April and May and the eggs hatch after about 60 days.

FOOD:- Other snakes. Rat snakes is favourite prey .Rarely feeds on frogs and rats.

HABITAT:- In dense rain forests, bamboo forests, tea plantations and hill slopes.

SCHEDULE:- II

CHARACTERISTICS :- Diurnal and nocturnal. Longest venomous snake in the world. Shy. Makes a loud hissing sound when disturbed. Can raise 50% of its body when disturbed. As from January to March the temperature is hot, it is suitable for its mating. Before laying the eggs, the female collects the surrounding leaves with the help of her tail and body and makes a nest and lays the eggs in it. The female guards the eggs until the eggs hatch. Sometimes the male king cobra is also found guarding the eggs. This snake is considered to be the most intelligent snake of its world. If a female comes in contact with another male, the male(her mate) will kill the female. King cobra is called ophiophagus in Latin which means snake-eating snake.

SYMPTOMS OF KING COBRA BITE :-

Snake venom affects the human nervous system.

1) Pain, swelling and burning sensation at the bite site starts within few mins. Limbs become weak.
2) Eye lids start drooping & it becomes hard to keep them open. Sometimes double images start to appear.
3) Frequent vomiting.
4) The tongue becomes hard and saliva starts flowing from the mouth.
5) Sweat breaks out, breathing becomes difficult.
6) Heart rate increases.
7) Causes death due to lack of treatment with muscle paralysis.

Common Krait

Bungarus caeruleus

Common Krait

Bungarus caeruleus

MARATHI NAME:- Manyar sarp.

FAMILY:- Elapidae

IDENTIFICATION :- Body colour black or dark brown. Stripes of pairs of white dots on it. Belly white. Eyes small and black. Scales in middle row on the back are hexagonal and large in shape. Scales smooth and shiny. Tail black.

LENGTH:- Average 3 ft. Maximum 5.5 ft.

BREEDING :- The female lays 7 to 12 eggs between March and May.

FOOD:- Mainly feeds on Wolf snake, lizards, rats etc.

HABITAT:- Rat burrows, fields & farms, piles of stone, bricks. Also found in search of food near human habitation.

SCHEDULE :- IV

FEATURES :- Nocturnal. Shy. This snake is highly venomous. Due to its dark appearance, it cannot be seen quickly in the dark. As it comes out for hunting at night, snake bite cases are more at night. Its venomous fangs are small and there is no pain after the bite. Many times bitten people die in sleep.

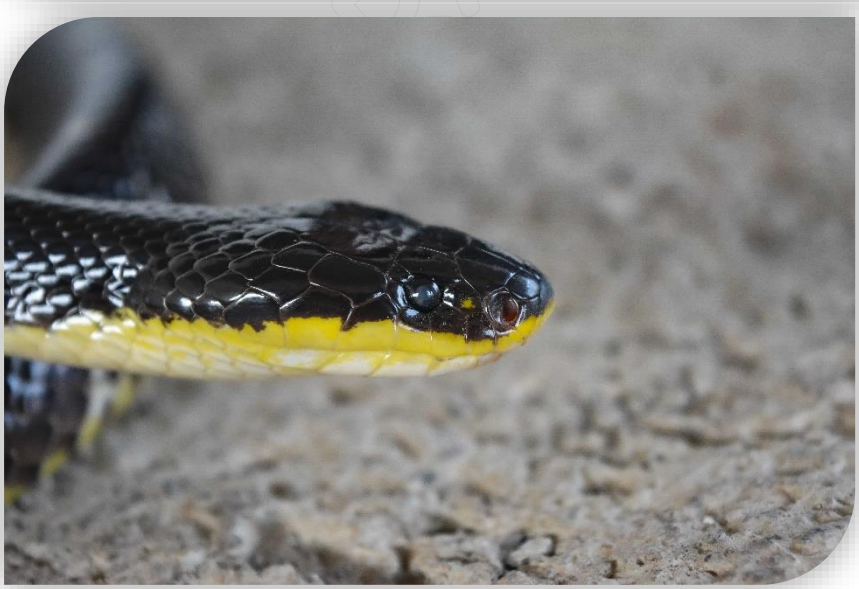
SYMPTOMS OF KRAIT BITE:-

Snake venom affects the nervous system in the same way as the cobra venom.

1) There is no pain or swelling at the bite site. Therefore, when one is asleep or not alert, one cannot understand that he has been bitten.
2) Initially there are no symptoms but after a few hours the symptoms start to appear and increase rapidly.
3) After some time stomach and joint pain starts and converts into unbearable pain.
4) Severe Back pain sometimes.
5) Untreated respiratory failure leads to death.

Wall’s sindh Krait

Bungarus sindanus walli



Wall's sindh Krait

Bungarus sindanus walli

MARATHI NAME:- Walls Sindh Manyar sarp.

FAMILY:- Elapidae

IDENTIFICATION:- Body colour dark black, bluish or dark brown. Single and separate Stripes of small white spots from tail to head. These spots fade towards head. Lower part of Mouth is yellow. Scales soft and shiny. Scales on the middle of the back are hexagonal in shape. Eyes small and black.

LENGTH:- Average 3 ft. Maximum 5.5 ft.

BREEDING:- The female lays 5 to 7 eggs between March and May.

FOOD:- Wolf snake, Rats, lizards and geckos.

HABITAT:- Barren as well as rocky areas, paddy fields old inhibited houses, villages, cities etc.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. Very colourful compared to common krait. Due to its dark appearance, it cannot be seen quickly in the dark. Known to be more aggressive & prone to bite than common krait. Considered to be Asia's most venomous snake.

Banded Krait

Bungarus fasciatus

Banded Krait

Bungarus fasciatus

MARATHI NAME:- Patteri Manyar sarp.

FAMILY:- Elapidae

IDENTIFICATION:- Triangular body with alternate black and yellow stripes. Plump abdomen. Blunt rounded tail. Marking on head like English letter 'V'. Scales shiny and soft. Eyes are black.

LENGTH:- Average 4 ft. Maximum 7 ft.

BREEDING:- The female lays 5 to 14 eggs between March and April.

FOOD:- Other snakes, rats, lizards and rarely frogs.

HABITAT:- Humid forests, villages, rocky areas

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. Rarely attacks due to its quiet and shy nature. Black and yellow stripes on the body make it blend in with the vegetation. Longest snake of the species of krait snake found in Maharashtra. In Vidarbha it is called Agya Manyar.

Slender Coral Snake

Calliophis melanurus

Slender Coral Snake

Calliophis melanurus

MARATHI NAME:- Powala sarp, raat sarp.

FAMILY:- Elapidae

IDENTIFICATION:- Body colour brown. Head black. Two black horizontal stripes on tail. Bluish under tail. Belly orange-red. Long slender body. Eyes small and black. Scales soft.

LENGTH:- Average 1 foot. Maximum 1 foot 2 inches.

BREEDING:- Female lays 2 to 7 eggs.

FOOD:- Small insects, Worm snakes.

HABITAT:- In soil, under piles of stones and bricks, also found under dry leaves.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal but also found during the day. The smallest of the venomous snakes. It is rarely found. When provoked, it warns by rounding the tail and displaying the red-orange colour below the tail. It looks exactly like Dumeril's Black headed snake. Since the venomous teeth of this snake are very small, they do not penetrate the tough skin of humans and therefore the number of bite of this snake is negligible.

Striped Coral Snake

Calliophis nigrescens

Striped Coral Snake

Calliophis nigrescens

MARATHI NAME:- Patteri Powala sarp.

FAMILY:- Elapidae

IDENTIFICATION:- Body colour dark brown, reddish black. 3 to 5 vertical black stripes on it. In dark black snake these lines are faint and indistinct. Head black with pale black horizontal stripe behind eyes. Abdomen reddish orange. Body long and slender. Tail blunt. Scales Under the tail are red & white.

LENGTH:- Average 2 feet. Maximum 4 feet.

BREEDING:- Female lays 3 to 6 eggs.

FOOD:- Small insects, caterpillars and small snakes.

HABITAT:- This snake lives in the thicket and sometimes climbs the tree while chasing prey.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal and nocturnal. When provoked, it curls up the tail & displays the orange colour below the tail.

Castoe Coral Snake

Calliophis castoe

Castoe Coral Snake

Calliophis castoe

MARATHI NAME:- Castoe cha powala sarp.

FAMILY:- Elapidae

IDENTIFICATION:- body colour glossy brown-purple. Slender body, glossy smooth scales, head is small. eyes black.

LENGTH:- Average 1 feet. Maximum 2 feet.

BREEDING:- Female lays eggs but the count is not known.

FOOD:- Small insects, caterpillars and small snakes.

HABITAT:- Under loose soil, cracks and crevices & dry leaves.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal but also seen at daytime during monsoon. When provoked, it curls up the tail & displays the orange colour below the tail as warning. Was supposed to be endemic to Amboli and northern parts of Karnataka but was recently discovered in Kolhapur district.

Russell's Viper

Daboia russelii

Russell's Viper

Daboia russelii

MARATHI NAME:- Ghonas, pharad.

FAMILY:- Viperidae

IDENTIFICATION:- Body colour brown, yellowish brown or dark brown. Rows of dark brown round spots with white border. Underparts yellowish white. Stubby round body. Head flattened-triangular and tail whitish. Eyes large and vertical pupil.

LENGTH:- Average 3.5 ft. Maximum 6 ft.

BREEDING:- Female gives birth to around 10 to 70 young ones between May to July. Maximum number of 115 young ones recorded.

FOOD:- Rats, frogs and other small mammals.

HABITAT:- Found in Rural As well as urban area. Prefers to live in sugarcane fields, rat holes , grassy areas, grain godowns and forests.

SCHEDULE:- II

CHARACTERISTICS :- Nocturnal but also found during the day in search of food. The colour of the body and the pattern on it allows it to camouflage in sugar cane fields under dry leaves. When provoked, it makes a warning sound like a cooker's whistle. This snake is very agressive in nature, makes a sudden attack like a spring with its coils. Although it looks thick and bulky, it attacks very quickly. It is agile on land. It can swim well in water. It resemble python. It is brutally killed as it is found in fields and near human settlements and hence this snake is included in Schedule 2 under the Wildlife Act. The venom of this snake is used in medicine for blood pressure, diabetes and other blood related diseases.

SYMPTOMS OF RUSSEL'S VIPER BITE:-

Russel's Viper venom affects the blood and circulatory system

1) There is severe and unbearable pain at the bite site and this pain and swelling spreads throughout the body.
2) Blisters appear at the bite site and the area turns dark blue and oozes blood or black water. Internal bleeding occurs. Pulse becomes irregular.
3) Sometimes blood comes from nose, mouth, urine. It causes weakness.
4) Liver failure leads to death due to lack of treatment.

Saw Scaled Viper

Echis carinatus

Saw Scaled Viper

Echis carinatus

MARATHI NAME:- Furse.

FAMILY:- Viperidae

IDENTIFICATION:- Body colour brown. White reticulated pattern on it. Brown white spots on middle of back from neck to tail. Head somewhat triangular, white or pale brown arrow-shaped markings on head. Eyes large and golden. Black eyes with vertical pupils.

LENGTH:- Average 1.5 feet. Maximum 2.5 feet.

BREEDING:- Female gives birth to 5 to 17 young ones between july and August.

FOOD:- Scorpions, lizards, geckos, small frogs, mice etc.

HABITAT:- Under stones, rocky ground, paddy fields.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal and nocturnal. The scales of this snake are coarse like saw blades. When disturbed, it makes a sound like a wood being saw by rubbing the scales against each other. The smallest and most venomous snake of the viper family found in India. The favourite food is scorpions and often while eating scorpions, this snake has to face scorpion stings. But its body has become immune to digest scorpion venom. Due to the decrease in the number of scorpions, the population of this snake also decreasing. Due to the large number of scorpions in Konkan, saw scaled vipers are found in large quantities here. When children collect stones from the field as stumps to play cricket, incidents of bites by this snakes often occur.

SYMPTOMS OF SAW SCALED VIPER BITE:-

1) There is severe and unbearable pain at the bitten place and this pain and swelling spreads throughout the body.
2) Blood clots are formed.
3) Sometimes blood comes through nose, mouth, gums & urine.
4) Death occurs due to lack of treatment.

Bamboo Pit Viper

Trimeresurus gramineus

Bamboo Pit Viper

Trimeresurus gramineus

MARATHI NAME:- Chapada.

FAMILY :- Viperidae

IDENTIFICATION:- Body colour green, yellowish, blue moss. Black or brown spots on body. Belly colour yellowish brown. Head flat and triangular. Lip yellowish. Moss coloured eyes. Erect pupil. Thermosensitive pits are present between eyes and nostrils.

LENGTH:- Average 2 feet. Maximum 4 feet.

BREEDING:- Female gives birth to 5 to 15 ypung ones between May to July.

FOOD:- Lizards, rodents and other mammals.

HABITAT:- On forest trees.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. When disturbed, it vibrates the tail & gives a warning before biting. It attacks by opening its mouth. It uses the tail to hang on the branch and catch the prey. It moves the tail like a worm to attract frogs and leaves on the tree and catches them if they come close. It has heat-sensing pits or simply thermal pits between eyes and nose which are used to catch the prey in the dark of night. Through these thermal pits, the snake can sense the body heat of the prey and that is why it can hunt the prey accurately even in the dark. Since this snake lives in the dense forest, its bite is very less. .

SYMPTOMS OF BAMBOO PIT VIPER BITE:-

The bite site becomes red and painful. These pains spread throughout the body. The blood becomes thin and coagulates slowly. Death occurs if not treated in time.

Malabar Pit Viper

Trimeresurus malabaricus

Malabar Pit Viper

Trimeresurus malabaricus

MARATHI NAME:- Malabar Chapada.

FAMILY:- Viperidae

IDENTIFICATION:- Malabar pit viper comes in various colours like bluish green, gray-brown, orange-red. Body with brownish-light brown spots. Flat, triangular head. Elevated pupil in eye. Thermal pits between eyes and nostrils.

LENGTH:- Average 2 ft. Maximum 3.5 ft.

BREEDING:- Female gives birth to 8 to 12 young ones.

FOOD:- geckos, lizards, frogs etc.

HABITAT:- On trees in the forest, sometimes comes to the ground for hunting hollows of the tree.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal & shy. Malabar pit viper & bamboo pit viper have a lot of similarities. Their life style, method of hunting is similar. Symptoms of bite of this snake are similar to bamboo Pit viper.

Hump Nosed Pit Viper

Hypnale hypnale

Hump Nosed Pit Viper

Hypnale hypnale

MARATHI NAME:- Nakadya Chapada.

FAMILY:- Viperidae

IDENTIFICATION:- Brown coloured body. Dark brown or pale black horizontal stripes on it. Triangular pointed head with upturned nose. Tail yellowish red.

LENGTH:- Average 1 ft. Maximum 2 ft.

BREEDING:- Female gives birth to 5 to 10 young ones between September-October.

FOOD:- Lizards, geckos and skinks.

HABITAT:- On dense forest trees. During day in thickets.

SCHEDULE:- IV

CHARACTERISTICS :- Nocturnal. Hides under the leaves during the day to catch its prey. When it is on the tree, it moves its tail like a worm to attract prey, frogs and lizards. As the shape of its nose is like a hump of a camel, this snake got its name as Hump Nosed. The bite of this snake is very inflammatory and painful compared to other Pit Vipers snakes & Its venom has been found to be more dangerous. But fortunately, this snake lives in dense forests and is rarely found in human habitations.

Hook Nosed Sea snake

Enhydrina schistosa

Hook Nosed Sea snake

Enhydrina schistosa

MARATHI NAME:- Samudra Sarp.

FAMILY:- Hydrophiidae

IDENTIFICATION:- Grey, moss green body with dark green stripes. Head and neck of equal thickness. Top of jaw larger than lower. Eyes medium with round pupils. Nostrils larger than other snakes. Flat tail.

LENGTH:- Average 2.5 ft. Maximum 4.5 ft.

BREEDING:- Female gives birth to 5 to 35 young ones between February and June.

FOOD:- Fish and other small marine animals.

HABITAT:- Mainly in the sea, sometimes found in bays.

SCHEDULE:- IV

CHARACTERISTICS :- Diurnal and nocturnal. The tail is flat like a whale, so it is useful for changing direction while swimming in the water. The gland under the tongue filters the salty water entering the body and accumulates salt and that salt is released back into the sea. This snake can stay under the water for 40 minutes to 2 hours. More venomous than land snakes.

General symptoms of venomous snakebite

1) Swelling and pain at the bite site.
2) Blackening of the bitten area and reddish discharge from the wound.
3) Sweating, weakness, drooping of eyes, tongue becomes heavy & saliva dribbles. frequent Vomiting.
4) Thickening of the eyelids, blurred vision.
5) Difficulty in breathing, difficulty in swallowing.
6) Bleeding from mouth, nose, urine.
7) Severe pain in joints & abdomen.

Symptoms of snakebite in animals

1) The animal becomes restless and starts running around.
2) Swelling occurs at the place of snakebite. Saliva starts oozing from the mouth.
3) The animal starts hitting its head because of pain.
4) Stops feeding if the effect of venom increases.
5) Due to weakness the animal drops its neck. It becomes difficult to stand.
6) Breathing becomes irregular.
7) The colour of urine becomes red. The redder the urine, the more is in the animal's affected.

If the symptoms of snakebite appear, the animal should be calmed down. Call a veterinarian or take the animal to the hospital.

Snake Bite

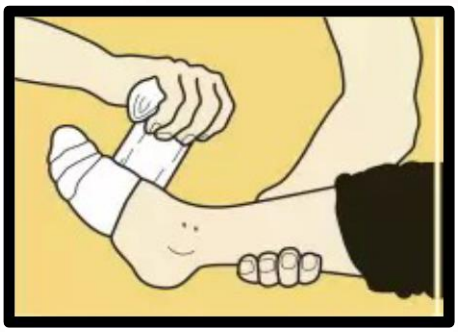
DO's

- Move the person beyond striking distance of the snake.
- Have the person lie down with wound below the heart.
- Keep the person calm and at rest, remaining as still as possible to keep venom from spreading. Give some water to drink
- Cover the wound site with loose, crape bandage.
- Remove any jewelry from the area that was bitten.
- Remove shoes if the leg or foot was bitten.

DONT's

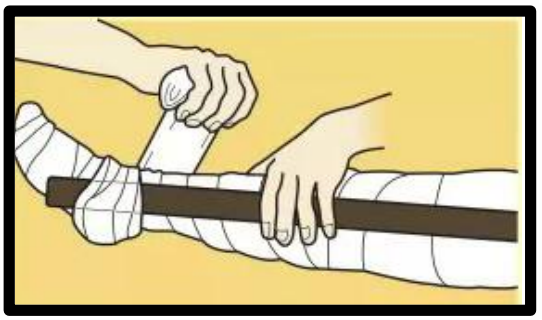
- Cut a bite wound
- Attempt to suck out venom
- Apply tourniquet, ice, or water
- Give the person alcohol, neem leaves or caffeinated drinks or any other medications
- Take the patient to Exorcist or mantrik.
- Take the patient to the temple for holy treatment.

Snake Bite First Aids

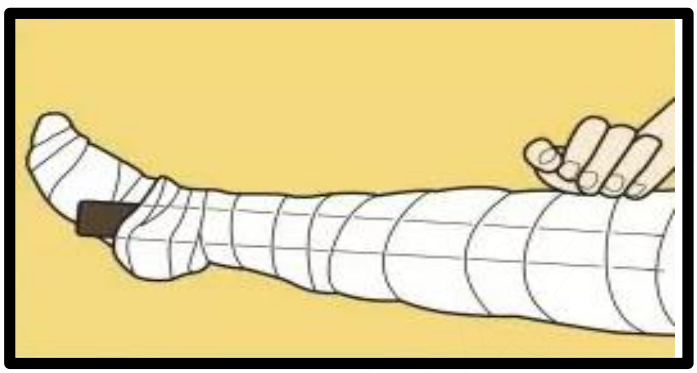


1. Apply a broad pressure bandage from below upwards and over the bite site as soon as possible. Keep the bitten leg still.

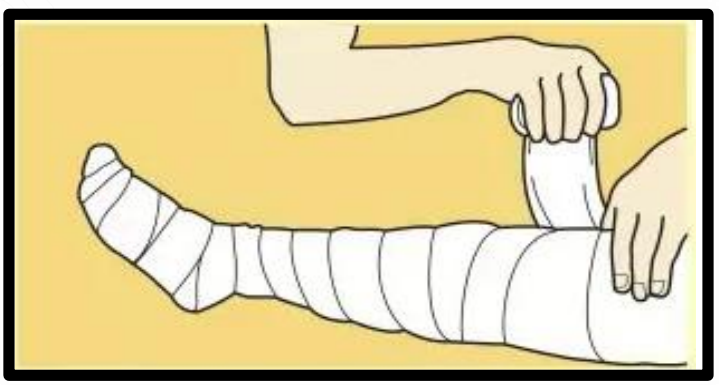
2. The bandage should be as tight as you would apply to a sprained ankle. The patients should avoid any unnecessary movements



3. Extend the bandages as high as possible



4. Apply a splint to the leg, immobilising joints either side of the bite

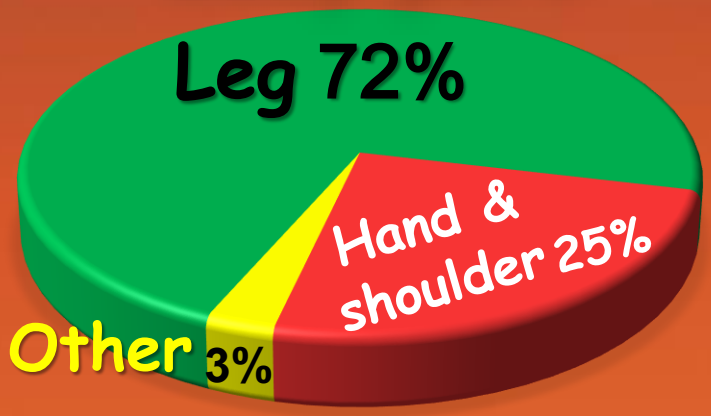


5. Bind it firmly to as much of the leg as possible. Walking should be restricted

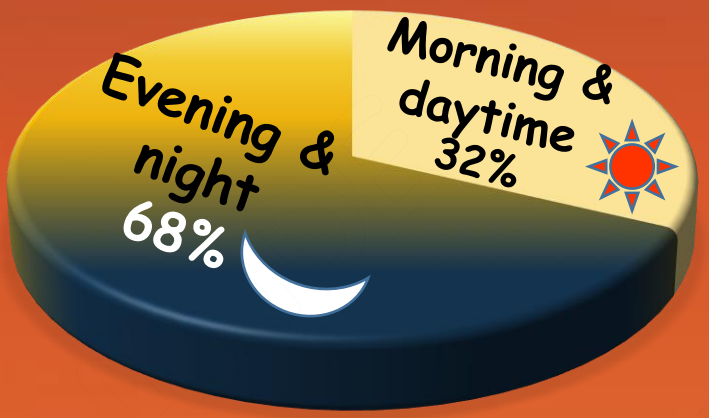
6. Bites on the hand and forearm: a. bind to elbow, b. use splint to elbow, and c use sling

NOTE:-It is not necessary in case of Viper bites.

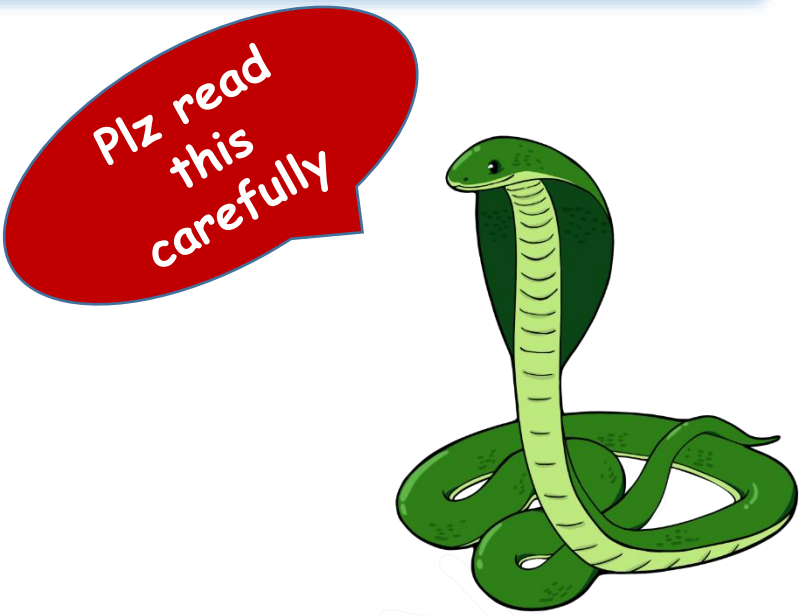
Snake bite on body part



Snake Bite Time



Misbeliefs and Superstitions about Snakes



1. Snakes drinks milk.

Explanation :- No snake drinks milk. Snakes are carnivores and feeds only on living creatures. Milk is the food of mammals. Feeding milk can lead to its death.

2. The snake dances to the tune of Pungi or flute.

Explanation :- Snake does not have ears. So snake cannot hear. Snake responses to the movement of the flute.

3. If a snake is killed its mate follows you to take revenge.

Explanation :- Snake never takes revenge. Since snake has poor memory, it does not remember anything.

4. Old snakes have hair on their body.

Explanation :- Hair does *not* grow on snakes. Periodically snakes cast of moult and if some moult remains, it appears like hair. Sometimes some snake charmers even stick hair onto the snake's head.

5. Snakes carry a diamond in their forehead.

Explanation:- It is impossible for a Snake to carry anything in its head. The mythological status attached with a Snake in India is probably responsible for this myth.

6. If you go near Russel's viper, its hissing will swell your body.

Explanation:- Russel's Viper hisses to warn not to come near it. Body swells only if bitten by it.

7. If you whistle at night snake gets attracted to it & comes into the house .

Explanation :- A snake does not have ears so it does not enter the house after whistling.

8. Snakes are attracted to the fragrance of Kevda.

Explanation :- Rats come to feed on the cobs of kevada & snake follows the rat to hunt.

9. Rat Snake has a thorn in its tail and it castrates men with the thorn.

Explanation :- Rat Snake's tail has no thorn. As the tail is short and pointed, the tail looks like a thorn.

10. A person is only affected by the snake's venom if the Snake turns upside down after biting.

Explanation :- The teeth of snakes are turned inwards. Sometimes the teeth of snakes get stuck after biting. To get rid of it, the snake turns upside down.

11. A Vine snake breaks or punctures one's head.

Explanation :- Human skull is very strong so no Snake can break it.

12. Red Sand Boa has heads on either sides.

Explanation :- The tail of Red Sand Boa is blunt & one often gets confused with head.

13. Chanting mantras have antivenom action & can neutralize the venom.

Explanation:-The only known treatment for snake bites is the Anti Snake Venom(ASV) Which is administered in hospitals. So no mantras can neutralize the venom

14. Pregnant women loose their eyesight if they see a snake.

Explanation:- This is not true. As there is no connection between a snake & Eyesight of pregnant woman, such things are just rumours.

Snakes fall firmly in the category of the most misunderstood creatures on earth. One wonders what did they do to deserve this reputation?
The blame if any can be shared by historical and mythological imagery, flamboyant filmy lines, lack of knowledge, lack of desire to acquire knowledge.
Old stereotypes die hard yet the human race has proven that it can change its views when presented with information and logic.
If all God's creatures are precious then let us mend the weaker links so we can once again form a perfect unblemished circle of life!

~ Nilimkumar Khaire (Herpetologist)

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References:-

Snakes (Nilimkumar Khaire) & other research papers.

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